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TWENTY-SECOND ANNUAL REPORT

OF THE

STATE BOARD OF HEALTH,

OF THE

STATE OF RHODE ISLAND,

FOR

THE YEAR ENDING DECEMBER 31, 1899,

AND INCLUDING
THE REPORT UPON THE REGISTRATION OF

BIRTHS, MARRIAGES, AND DEATHS IN 1898.



PROVIDENCE, R. I.

E. L. FREEMAN & SONS, STATE PRINTERS.

1903.



M E M B E R S

OF THE

RHODE ISLAND STATE BOARD OF HEALTH.

Post Office Address.

- ALBERT G SPRAGUE, M. D., *President*..... RIVER POINT KENT COUNTY.
- SAMUEL M. GRAY, C. E..... PROVIDENCE..... PROVIDENCE COUNTY.
- JOHN C. BUDLONG, M. D..... PROVIDENCE..... PROVIDENCE COUNTY.
- REV. GEORGE L. LOCKE..... BRISTOL..... BRISTOL COUNTY.
- ALEXANDER B. BRIGGS, M. D ASHAWAY..... WASHINGTON COUNTY.
- RUFUS E. DARRAH, M. D..... NEWPORT... NEWPORT COUNTY.
- GARDNER T. SWARTS, M. D PROVIDENCE..... PROVIDENCE COUNTY.

GARDNER T. SWARTS, *Secretary*.

To the Honorable the General Assembly :

In compliance with the General Laws, the Annual Report of the State Board of Health is hereby respectfully submitted.

GARDNER T. SWARTS,

Secretary.

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GENERAL REPORT.

The work of the State Board of Health during the year has been a continuation of study of the various conditions pertaining to the public health, especial use being made of the more recent methods of diagnosis and investigation which have been made available during the past few years.

CONTAGIOUS DISEASES.

Monthly reports of the number of cases of communicable diseases which have occurred in the various towns, including scarlet fever, diphtheria, and typhoid fever, have been continued. This makes it possible for comparison of the comparative prevalence of any of these diseases in any of the towns or throughout the State. These records were begun in the year 1894, and thus comparison of increase or decrease may be made. The local health authorities are yearly giving more intelligent attention to this class of work, and the control of these diseases has been more thoroughly systematized.

WATER SUPPLIES.

There has been no change in the system of water supplies of the State since the previous report. An improvement in one of the sources of supply has been made as a result of the work of the board during the previous year.

The city of Providence continues to receive its supply from the Pawtuxet river, the intake being located at the Pettaconset pumping-station. The gross contaminations which existed along the banks of this river years ago have been removed. Vaults and

cesspool wastes are prevented from entering the stream. There still exists the possibility of a new contamination being established at any time by the location of a drain, or stable, or barn-yard, which may contribute to the surface flow any detritus that may accumulate. Surface flow from streets and from fertilized farm lands continues to flow into the river. It is assumed that dye-stuffs and refuse wastes from manufactories do not find their way into the river, at least without a gross form of filtration, which removes some of the color and organic matter. Owing to the inefficient and unsatisfactory means of filtration in these cases, it becomes necessary to allow the wastes to run free into the stream. Bathing in the stream is not prohibited, and is made use of freely during the summer months by the operatives residing along the stream. On æsthetic grounds, permission for bathing in the storage reservoirs is not given. The greatest danger which might occur from such a case would occur only when a person who was convalescing from typhoid fever made use of the stream for this purpose.

The supply of the city of Woonsocket continues the same. The water-shed is closely guarded, and is completely controlled by the city by ownership of the entire water-shed. Legal control of this supply is the only public law which has ever been enacted for the protection of drinking-water in this State.

Although the enlarged reservoir of the Newport Water Company has given an increased available supply, yet the constantly increasing demand and the limited water-shed require the utmost economy to be exercised to avoid unnecessary waste.

The Bristol Water Company continues to supply the towns of Bristol and Warren. The endeavor of the town of Bristol has been in the hands of a master of arbitration, and there appears little prospect of a change of ownership at present. The quality of the water remains the same. The water-shed is shallow, and the storage also. The chance of contamination is extremely slight, and depends upon the surface washings from fields occupied by cattle. The color and taste remain of the same intensity.

The water supply of the city of Pawtucket, which supplies a large number of the surrounding towns and villages, still maintains its superior quality. Although filtered through a coarse gravel or pebble and charcoal bed, yet this probably removes little but the coarser matters, which are held in suspension. It does not serve to remove any of the dangerous elements which might find their way into the river from careless use of mill privy vaults. A certain amount of inspection of the banks of the river is maintained, and any possibility of contamination is corrected as soon as discovered.

There exists at one point on the stream a mill which has its so-called tight privy-box so located that an overflow from this might be carried into the stream in the time of heavy rains.

EXAMINATION OF WATER SUPPLIES.

The regular inspection of the banks of the Pawtuxet river for existing pollutions or possible intent to contaminate the river through desire to dispose of refuse, or by ignorance, has been continued by the inspectors engaged by the city of Providence, and under the direction of the commissioner of public works of that city. The fact remains, however, that there is always the possibility of the river being contaminated by some member of the population in that district placing noxious matter in the stream. The last prevalence of typhoid fever, connected with the water supply, was traced to contamination placed in the river by attendants of a typhoid patient. To thoroughly dispose of the excrement, and to insure its removal from the premises, the stools of the patient were all dumped into the river. Manufactories upon the stream have large quantities of dye-stuffs to dispose of. An endeavor is made to filter or precipitate the suspended matters in these wastes. The result is more or less successful, but at times, owing to the necessity of cleansing the clogged filter, it is alleged that the wastes are allowed to go free into the stream, thereby heightening the color of the supply, if not possibly admitting

other filth which may prove injurious to those ingesting the water.

A semi-monthly chemical analysis of the water is made by the city of Providence, the sample being taken from the intake at the Pettaconset pumping-station, and a monthly bacteriological and chemical analysis is made, by this board, of samples taken at the villages of Hope and Washington, above points of pollution, as well as of a sample taken from the Pettaconset pumping-station, at the point where the water is taken from the river.

This data has been obtained for several years, and now proves of great value to the city of Providence in determining the comparative values of the waters now used as compared with the supply at previous times. It also makes possible a comparison of the quality of the supply as found before and after pollution. As is to be expected, the water received at the Pettaconset pumping-station (and which is supplied to the city through the reservoir at Sockanosset and thence through pipes to the city) shows a greatly inferior quality to that taken from the two points above any source of pollution, namely, at Hope and Washington.

Although this has been stated many times, and is in full knowledge by the board of public works and by the council of the city of Providence, yet no attempt has been made to correct this condition. The joint special committee of the common council, appointed to report upon the means at hand for the purification of the supply, replied that it was not only desirable but necessary that the water be purified before being delivered to the consumers, and that it was possible to do this by means of either sand filtration or by mechanical filtration, but that mechanical filtration was to be preferred, and has recommended it to the council, on account of its lower first cost, its simplicity in operation, its perfect control in cleaning, and from its non-dependence upon severe changes in the weather during the winter months.

Opposition to the process of mechanical filtration was made by certain physicians, on account of the presumed possibility of the alum, used in the process as a precipitant or coagulent, getting

into the filtered water, and being a source of danger to the public. While this objection was not supported by any data or facts in regard to the danger of the use of alum in this manner, yet the sentiment against its use prevailed with the common council; and while the endeavor to establish such a plant was defeated, yet no attempt was made to introduce and pass a resolution recommending that the sand filtration be adopted. The city was therefore allowed to drift along, supplying a contaminated water to its consumers, with the possibility of an epidemic pending at any time.

The East Providence Water Company supplies a portion of the town of East Providence, the water being taken from the Ten Mile river, at Hunt's Mills. This river, as stated in the previous report, passes through a populous district and receives the washings of the water-shed from fields which are more or less fertilized. In addition, the stream receives the wastes from sewers and waste-pipes from factories and from the town of Attleboro, Mass. The number of persons contributing to this contamination is estimated at 3,500. Dye-stuffs and acid-washings from dye-houses and jewelry manufactories add to the pollution. It becomes necessary either to abandon this supply, or to cause the nuisances in the form of pollution to be abated, or to purify the contaminated water before delivery to the consumers.

As stated in the previous report, attention was given to this matter, inspections were made, communications sent to the State Board of Health of Massachusetts, asking for relief from the contaminations, and replies from that board that nothing could be effected by them. The owners of the water company were warned as to the continued use of the water without purification, and they promised to give the subject immediate attention. During the year a mechanical filtration plant has been established, and has been in operation since February 26th. A report as to the character of the filtered water and the tests made of the working of the plant will be found in the body of this report.

EXAMINATION OF SPUTUM FROM CASES OF SUSPECTED TUBERCULOSIS.

The free examination by the board of all samples of sputum received from cases of suspected tuberculosis, for physicians only, has been continued with gratifying results. By this means a physician is assisted in making an early discovery of the presence of this disease, and is able to give to his patient more prompt and assiduous attention. The patients are at times made aware of the fact that they are suffering from this disease while in its incipency, and are enabled to obtain for themselves such treatment as may be available.

The public receives the benefits from this work by the greater care of the patient to avoid indiscriminate expectoration, thus reducing in a great measure the opportunities of spreading the disease. Money spent by the State in this manner is a good investment.

EXAMINATION OF CULTURES IN CASES OF SUSPECTED DIPHTHERIA.

The examinations of the secretions of the throat and the growths therefrom upon a nutrient blood serum, for physicians, in cases suspected to be diphtheria, have been continued with the same advantage to the physician, the public, and the health officer, as in previous years. Many cases of simple pharyngitis presenting no clinical symptoms of diphtheria have been found to contain the organisms which produce this disease; the corroboration of the bacteriological diagnosis being confirmed later by the appearance of the membrane and the train of symptoms to be found in diphtheria. This system of control was commenced by this board in 1894, Rhode Island being the first State to establish the system as a State, the city of New York having been the pioneer health department in this matter.

PERSONNEL OF THE BOARD.

There has been no change in the personnel of the board since the previous report.

SECRETARY'S REPORT.

TOWN SANITATION.

1899.

REPORTS FROM TOWNS,

IN RELATION TO SANITARY IMPROVEMENTS, ETC.

It has been observed, in the previous issues, that a complete annual report of a State Board of Health properly includes an account of the measures taken each year by the municipal authorities, corporations, or individuals for the promotion of the health of the communities under their respective supervision or control. In order, therefore, to ascertain the facts in relation to such measures, and for the purpose of presentation in this report as in the reports heretofore issued, and in the continuance of the design to keep well informed of all proceedings throughout the State on the part of town or city councils or any form of municipal authority in the appointment of health officers or boards of health, and in the direction of improvements which have in view and seem to promise the promotion of public health by the abatement of nuisances or the removal of unsanitary conditions and surroundings, or by the introduction of water for general use, or construction of sewers, or the establishment of other public works which may not only be of great public utility and convenience but also serve in some measure, large or small, in the prevention of disease, the secretary has, as heretofore, solicited replies from the town and city clerks of the several towns and cities, or other municipal officers, in answer to questions proposed in a circular sent for that purpose.

It is designed and hoped that a connected history may thereby be secured of all sanitary improvements of a public character in all parts of the State, from year to year; and the gradual awaken-

ing of the citizens of the different towns to the necessity of sanitary public measures thereby be shown ; and also whatever intelligent appreciation of such necessity, and whatever public spirit in existence in the towns there may be, may be known as manifested by the readiness with which needed sanitary measures are adopted.

The following is the form of circular sent at close of the year 1898 :

CIRCULAR No. 130.

OFFICE OF SECRETARY OF STATE BOARD OF HEALTH,

48 WEYBOSSET STREET,

PROVIDENCE, R. I., Jan. 1, 1899.

To the Town Clerk :

It is, by statute law, made the duty of the secretary of the State Board of Health to make inquiries of town or city clerks, or of the clerks of local boards of health, in regard to the general health and sanitary condition of the towns, and also in regard to measures taken for the improvement of the same, as may be seen by the following section from the

PUBLIC STATUTES, CHAPTER 83.

SEC. 6. The secretary of the said board shall make inquiry, from time to time, of the clerks of town and local boards of health, and practicing physicians, in relation to the prevalence of any disease, or knowledge of any known or generally believed source of disease, or causes of general ill-health, and also in relation to the proceedings of the said boards of health in respect to acts for the promotion and protection of the public health, and also in relation to diseases among domestic animals, in their several towns and localities, respectively ; and the said clerks of town and local boards of health and said practicing physicians shall give such information in reply to said inquiries, of such facts and circumstances as have come to their knowledge.

In order to make complete the annual report of this board to the General Assembly, the secretary would respectfully ask your co-operation by answers to the following questions :

1. Has any work for the promotion of public health been contemplated

or completed in your town by the town authorities, or by private enterprise, during the year? If any, please state what.

2. If by introduction or extension of water service for general use, please state what proportion of the population, by estimation, was supplied with the same at the end of the year.*

3. If city or town has sewage system, state the aggregate length of sewers, by estimation or otherwise, and about what proportion of the population has drainage connected with them at the end of the year.*

4. If by new ordinances in abatement of nuisances, or for any sanitary purpose, please send copy of same; also state how far, to your best knowledge, all the sanitary ordinances have been enforced. Copies of town ordinances especially desired.

5. Has your town any legal board of health beside the town council? If so, please give the names of the officers of the same.

6. Please give the names of the health officers of your town.

7. Has gratuitous vaccination been provided in your town during the past year? What proportion of the population was vaccinated, according to your best knowledge?

8. Have undertakers promptly sent in their returns of death? Please give names of any who do not. (See Public Statutes, Chap. 85, Sec. 1.)

9. Do clergymen make returns of marriages promptly each month, as required by Public Statutes, Chap. 85, Sec. 4?

Thanking you in advance for your assistance, I am,

Yours truly,

GARDNER T. SWARTS,

Secretary.

N. B.—The town or other clerk should charge a remunerative fee for replying to the above circular, and present to the town council or board of health, it being a service required by law.

* If not known by the person replying, please state where or of whom such information may be obtained.

BRISTOL COUNTY.

BARRINGTON.

1. Nothing for the promotion of the public health has been done during the year.
3. This town has no sewage system.
4. No new sanitary ordinances have been adopted during the year. (See contagious disease ordinance, report of 1897, p. 10.)
5. This town has no legal board of health other than the town council.
6. Charles H. Bowden, health officer.
7. Gratuitous vaccination has not been provided in this town during the year.
8. In the main, undertakers have made returns of deaths promptly.
9. Clergymen make returns of marriages promptly.

FREDERICK P. CHURCH, *Town Clerk.*

BRISTOL.

1. In the early part of the summer season the town council instructed the surveyor to give close attention to cleaning streets and gutters. The health officer was also instructed to have sewers, cesspools, and vaults cleaned. All of these orders were carried out and strictly enforced.
2. The compact part of the town is dependent wholly upon water service.
3. This town has no sewage system. There are many sewers leading to the harbor, all of which have been built by private parties.
5. This town has no legal board of health other than the town council.
6. George H. Peck, health officer.
7. Gratuitous vaccination has been provided during the year.
8. Returns of deaths and births are promptly sent to this office.
9. Returns of marriages are promptly made to this office.

HERBERT F. BENNETT, *Town Clerk.*

WARREN.

1. Nothing special for the promotion of the public health has been done during the year.

2. To the best of my knowledge there was no extension of the water service of this town during the year.

3. This town has no public sewage system. Many tenements of the Warren Manufacturing Company and several streets in different parts of the town are drained by sewers.

4. The only new ordinance governing sanitation passed during the year is as follows :

It is ordained by the Town Council of Warren as follows :

SECTION 1. No person shall suffer or allow the carcass of any dead horse, cow, or ox, or any other animal, to be or remain unburied on his premises, or on the premises occupied by him, in the town of Warren, so as to be prejudicial to health or an annoyance to the neighborhood.

SEC. 2. Any person who shall violate this ordinance shall be fined not exceeding twenty dollars, or be imprisoned not exceeding thirty days.

SEC. 3. This ordinance shall take effect immediately.

5. This town has no legal board of health other than the town council.

6. Abraham Bowen, health officer.

7. Gratuitous vaccination has been provided during the year, and about one twenty-fourth of the population has availed itself of the same.

8. Undertakers have generally made prompt returns of deaths.

9. Clergymen make returns of marriages promptly.

CHARLES B. MASON, *Town Clerk.*

KENT COUNTY.

COVENTRY.

1. Nothing for the promotion of the public health has been done during the year.

2. This town has no public water service.

3. This town has no sewage system.

4. No new sanitary ordinances have been adopted during the year.

5. This town has no legal board of health other than the town council.

6. John Winsor, M. D., health officer.
7. Gratuitous vaccination has not been provided in this town.
8. Undertakers have made prompt returns of deaths.
9. Clergymen make returns of marriages promptly.

STEPHEN W. GRIFFIN, *Town Clerk.*

EAST GREENWICH.

1. Nothing for the promotion of the public health has been contemplated during the year.

2. There are about five hundred water-taps in town. Fully sixty-four per cent. of the population is supplied with water.

3. The aggregate length of sewers in this town is 6,335 feet. This affords drainage to 125 estates, 75 per cent. of which have connections made. The population of the area drained is probably between 600 and 700.

4. No new health ordinances have been passed during the year. All sanitary regulations, as far as is known, have been well enforced. (Health ordinance, see report of 1894, p. 27.)

5. This town has no legal board of health other than the town council.

6. Elbridge G. Carpenter, M. D., health officer.

7. It is understood that gratuitous vaccination is given to any who may apply to health officer.

8. Undertakers are prompt in making returns of deaths.

9. Clergymen are prompt in making returns of marriages.

GEORGE A. LOOMIS, *Town Clerk.*

WEST GREENWICH.

No reply from the town clerk.

WARWICK.

1. Nothing for the promotion of the public health has been done during the year.

2. This town has no public water service.

3. This town has no sewage system.

4. No new sanitary ordinances have been adopted during the year. (Contagious disease ordinance, see report of 1893, p. 45.)

5. This town has no legal board of health other than the town council.
6. Albert G. Sprague, M. D., health officer.
8. Undertakers have made prompt returns of deaths.
9. Clergymen make returns of marriages promptly.

JAMES T. LOCKWOOD, *Town Clerk*.

NEWPORT COUNTY.

JAMESTOWN.

2. About two-thirds of the population of this town are supplied by the public water service.

3. A small extension of the town sewers has been made. The length of sewers in this town is about four and one-quarter miles, and about two-thirds of the population are connected therewith.

4. No new health ordinances have been passed during the year. All sanitary regulations have been well enforced. (Health laws, see report of 1893, p. 46, and 1894, p. 29.)

5. This town has no legal board of health other than the town council.
6. Abbott Chandler, health officer.
7. Gratuitous vaccination has not been provided during the year.
8. Undertakers have made prompt returns of deaths.
9. Clergymen make returns of marriages promptly.

WILLIAM F. CASWELL, *Town Clerk*.

LITTLE COMPTON.

1. Nothing for the promotion of the public health has been done during the year.

AN ORDINANCE FOR THE REGULATION AND PREVENTION OF CONTAGIOUS, INFECTIOUS, AND EPIDEMIC DISEASES.

The following ordinances are hereby declared to be the ordinances of this town, and shall go into operation and effect on and after their passage.

It is ordained by the Town Council of the Town of Little Compton as follows :

SECTION 1. Every physician or householder having knowledge of the existence of any case of contagious, infectious, or epidemic disease within

the town of Little Compton shall immediately make report thereof, in writing, to the health officer of said town, with particulars. And said health officer shall forthwith take necessary precautions to prevent the spread thereof.

SEC. 2. The diseases referred to in the preceding section shall include asiatic cholera, cerebro spinal meningitis (spotted fever), membranous croup, diphtheria, measles, scarlet fever, small-pox, typhus fever, typhoid fever, whooping cough, yellow fever, and such other contagious, infectious, or epidemic diseases as the health officer shall from time to time designate.

SEC. 3. Any physician, householder, or person who shall fail to comply with the provisions of the preceding sections shall be fined not less than five dollars, nor more than ten dollars, for each day of such neglect, after having knowledge of the existence of any of the diseases aforesaid.

SEC. 4. Whenever the health officer shall believe, or is notified that there exists in the town of Little Compton, any case of malignant or contagious disease, he shall have authority to visit the premises where the disease is supposed or suspected to exist, and to investigate the matter of such existence, and to take proper precautions to prevent the spread of such disease, and he may, if necessary, call upon the town sergeant for assistance in making such investigations, or in enforcing the observance of such precautions as may be issued advisable.

SEC. 5. The health officer having knowledge of the presence of scarlet fever, diphtheria, measles, small-pox, or Asiatic cholera in any house, shall place or cause to be placed a card or cards upon such house where such disease or diseases exist, bearing the name or names of the disease or diseases in such house, which card or cards shall not be removed without the consent of the health officer. Any person who shall wilfully remove or deface said card or cards shall, upon conviction thereof, be fined ten dollars for the first offence and twenty dollars for each subsequent offence.

SEC. 6. The health officer may, upon consultation with, and by the advice and consent of, some member of the town council, set a proper guard to prevent the spread of any contagious, infectious, or epidemic diseases, and shall give such directions as he may deem proper concerning the ingress and egress of persons to and from any house in which any of said diseases exist; and any member of the town council in his discretion, if, in his opinion, immediate action is required, upon receiving notification that any person is sick with any infectious, contagious, or epidemic disease, may set such guard as aforesaid without consulting with said health officer, and give such direction as he may deem proper, in which case such member of the town council shall notify said health officer

Every person who shall wilfully disregard or violate any direction, rule, regulation, or order of said health officer, or member of town council, concerning the ingress or egress of persons to and from said house, shall be fined not exceeding twenty dollars, or imprisoned not more than ten days.

SEC. 7. No person living in a family where there is a case of small-pox shall attend school, Sunday-school, or any public place, or ride in any public conveyance; and no person employed in any workshop or place of business shall return to work until the patient has passed the period of desiccation (falling off of scabs), nor till the house has been properly disinfected and fumigated by, and under the direction, and to the satisfaction of, the health officer, nor without a certificate or permit from the health officer.

SEC. 8. No person living in a family where there is a case of scarlet fever shall attend school, Sunday-school, or any public place or public gathering, until at least six weeks from the beginning of the last case in said family, nor till desquamation (peeling of the skin) shall have ceased, nor until the house has been disinfected and fumigated by, and to the satisfaction of, the health officer, nor without a certificate or permit from the health officer.

SEC. 9. No person having diphtheria shall attend school or be employed at any business, and no person living in a family where diphtheria exists shall attend school, Sunday-school, or any public place, until one week after the recovery of the patient, and until the absence of the disease has been demonstrated by bacteriological examination of the secretions of the throat, nor until the house has been disinfected by, and under the direction, and to the satisfaction of, the health officer, nor without a permit or certificate from the health officer.

SEC. 10. No person having measles or living in a family where there is a case of measles shall attend school or Sunday school, until one week after the recovery of the last patient, nor until the last patient in said family has ceased to desquamate, nor without a certificate or permit from the health officer.

SEC. 11. No person with whooping cough, mumps, or chicken pox, shall attend school or Sunday school, until complete recovery, nor without a certificate or permit from the health officer.

SEC. 12. The above rules shall, when deemed necessary by the health officer, be extended to all persons living in the same house where any of the above diseases exist, and the health officer may at his discretion extend the period of isolation specified in the preceding sections.

SEC. 13. No teacher in a public or private school, or other educational

institution, who has knowledge of such case, shall admit a person from a house in which there is or has been a case of small-pox, scarlet fever, diphtheria, or membranous croup, without a permit from the health officer.

SEC. 14. Every physician having knowledge of the death of any person within the town of Little Compton from any contagious, infectious or epidemic disease, upon whom he had been in attendance, shall immediately make a report thereof in writing to the health officer of this town.

SEC. 15. The funeral of any person who has died while suffering from or afflicted with small-pox, scarlet fever, diphtheria, or membranous croup, and the funeral of any person that has died while any member of the family of such person is suffering from or afflicted with small-pox, scarlet fever, diphtheria, or membranous croup, shall be private, and the attendance thereat shall be limited to the immediate relatives of the deceased, adult pall bearers, clergymen and undertaker, together with such other persons as shall have received from the health officer permission to be present.

SEC. 16. No person who has the care or custody of the body of any person who has died while suffering from or afflicted with small-pox, scarlet fever, diphtheria, or membranous croup, and no person who has the care or custody of the body of any person who has died while any member of the family of such person is suffering from or afflicted with small-pox, scarlet fever, diphtheria, or membranous croup, shall permit any funeral other than such as is specified in the foregoing section, and no person having the care or custody of such body shall permit any assemblage or gathering to be held in any house containing such body, and when such body has been placed in a casket, the casket shall be immediately closed, and not opened again before burial. No person having the care and custody of the dead body shall knowingly or wilfully do or permit to be done any unnecessary act by which such disease may spread from such dead body.

SEC. 17. No undertaker shall assist at the funeral of any person who has died while suffering from or afflicted with small-pox, scarlet fever, diphtheria, or membranous croup; and no undertaker or clergyman shall assist at the funeral of any person who has died while any member of the family of such person is suffering from or afflicted with small-pox, scarlet fever, diphtheria, or membranous croup, unless such funeral be conducted in accordance with section 15.

SEC. 18. Every person who shall violate any provision of the preceding sections shall, upon conviction thereof, pay a fine of not more than twenty dollars, or be imprisoned not exceeding ten days.

SEC. 19. Any person who shall violate any of the provisions of this ordinance, the punishment whereof has not been hereinbefore provided for, shall, upon conviction thereof, pay a fine of not more than twenty dollars, or be imprisoned not exceeding ten days.

SEC. 20. It shall be the duty of the health officer of this town to make complaint of the violations of the provisions of the ordinances of this town.

SEC. 21. All complaints of the violation of any of the provisions of this ordinance shall be made to the town council, who shall examine into the cause of said complaint, and if said town council shall find just cause for complaint, said town council shall cause the person complained of to be prosecuted.

SEC. 22. All violations of the provisions of each and every ordinance now in force, or which shall hereafter be adopted, shall be prosecuted by complaint and warrant, or other legal process, before any court of competent jurisdiction; and in cases of prosecution by complaint and warrant, the town sergeant and such constables as the town council shall, from time to time, appoint for that purpose, shall alone be authorized to make complaint without giving surety for costs.

SEC. 23. In all cases where default shall be made in the payment of the fine and costs imposed by the court, for the violation of this ordinance, each and every person upon whom such fine and costs shall be imposed shall be committed to the Newport county jail until the sentence be performed in all its parts.

SEC. 24. All ordinances and parts of ordinances inconsistent herewith, and the ordinances passed March, 1898, are hereby repealed.

SEC. 25. This ordinance shall take effect immediately.

Passed by the town council June 3d, 1899.

Attest:

F. R. BROWNELL, *Clerk*.

5. Adam S. MacKnight, M. D., health officer.
7. Gratuitous vaccination has not been provided during the year.
8. Undertakers have made prompt returns of deaths.
9. Clergymen make returns of marriages irregularly.

FREDERICK R. BROWNELL, *Town Clerk*.

MIDDLETOWN.

1. No special work in relation to the protection of the public health or the improvement of sanitary conditions has been begun or designed during the year.

2. There was no extension of the water service of this town. A few families are supplied free from the mains of the Newport water works, which run through several highways of this town.

3. This town has no sewage system.

4. No new ordinances were passed during the year. Ordinances in relation to health have been generally complied with. The presence of contagious disease in a house has not always been indicated by a notice outside. (Contagious disease ordinances, see report of 1893, p. 48.)

5. This town has no legal board of health other than the town council.

6. George E. Ward, health officer.

7. Gratuitous vaccination was provided in the month of June, and Dr. C. F. Barker, of Newport, was engaged to make the vaccinations. The number vaccinated was not reported to this office.

8. Returns of deaths have been promptly sent to this office. In most cases before the burial of the deceased person.

9. But few marriages are solemnized in this town. These are returned as required by law.

ALBERT L. CHASE, *Town Clerk.*

NEWPORT.

No report from the city clerk.

NEW SHOREHAM.

1. Nothing special for the promotion of the public health was done during the year. An appropriation was made for the purpose of improving the "Harbor Pond," at present a pond of brackish water.

5. This town has no legal board of health other than the town council.

6. Hamilton A. Mott, health officer.

7. Gratuitous vaccination has not been provided during the year.

8. Undertakers are fairly prompt in making returns of deaths.

9. Clergymen make returns of marriages promptly.

EDWARD P. CHAMPLIN, *Town Clerk.*

PORTSMOUTH.

1. Nothing particular for the promotion of the public health has been done during the year. In fact, there is not much cause for anything of this kind.

2. This town has no public water service.
3. This town has no sewage system.
4. At a session of the town council as a board of health, held on the sth day of May, it was voted and ordained that any and all persons be, and are hereby, strictly forbidden to dump any rubbish of any kind whatsoever on any part or within any of the respective highways in this town.
5. The town council constitutes the board of health.
6. Minot A. Steele, M. D., health officer.
7. Gratuitous vaccination has been provided during the year, and about one-eighth of the population has availed itself of the same.
8. Undertakers are prompt in making returns of deaths.
9. Clergymen make returns of marriages promptly.

WILLIAM F. BRAYTON, *Town Clerk.*

TIVERTON.

No reply from the town clerk.

4. (Contagious disease ordinances, see report of 1897, p. 17.)

PROVIDENCE COUNTY.

BURRILLVILLE.

1. Nothing for the promotion of the public health has been done during the year.
2. This town has no public water service.
3. This town has no sewage system.
4. No new ordinances have been passed during the year. Those in force are fairly well enforced. (Contagious disease ordinances, see report of 1897, p. 20.)
5. This town has no legal board of health other than the town council.
6. John Clavin, health officer.
7. Gratuitous vaccination has not been provided during the year.
8. The undertakers have been commendably prompt with their returns of death.
9. Clergymen generally make returns of marriages promptly.

EDGAR A. MATHEWSON, *Town Clerk.*

CENTRAL FALLS.

1. Nothing for the promotion of the public health has been done during the year.
2. About 95 per cent. of the population of this city is supplied by the water service of this city.
3. The length of sewers in this city is 8.03 miles, and about 35 per cent. of the population is connected therewith.
5. The board of aldermen constitute the board of health of this city.
6. Charles F. Sweet, M. D., health officer.
7. Gratuitous vaccination has been provided during the year, and 316 persons availed themselves of the same. The city physician acts as vaccinating physician, and all who wish it are vaccinated or revaccinated.
8. Undertakers are prompt in making returns of deaths.
9. Clergymen make returns of marriages promptly.

C. FRED. CRAWFORD, *City Clerk.*

CRANSTON.

1. Nothing for the promotion of the public health has been done during the year.
6. Daniel S. Latham, M. D., and John Bigbee, health officers.
7. Gratuitous vaccination has been provided during the year.
8. Undertakers are prompt in making returns of deaths.
9. Clergymen make returns of marriages promptly.

DANIEL D. WATERMAN, *Town Clerk.*

CUMBERLAND.

1. Nothing for the promotion of the public health has been done during the year.
2. There has been no extension of the public water service during the year.
3. This town has no sewage system.
4. There have been no new ordinances adopted during the year. Those in force at present are well enforced. (Contagious disease ordinance, see report of 1893, p. 53.)

5. This town has no legal board of health other than the town council.
6. William J. McGunnagle, health officer.
7. Gratuitous vaccination has not been provided during the year.
8. Undertakers are prompt in making returns of deaths.
9. Clergymen do not make returns of marriages promptly.

JOHN F. CLARK, *Town Clerk.*

EAST PROVIDENCE.

1. Nothing for the promotion of the public health has been done during the year.
2. About 75 per cent. of the population of this town is supplied by the water service of this town.
3. The length of sewers in this town is one and one-quarter miles, and about two per cent. of the population is connected therewith.
4. There have been no new ordinances adopted during the year. Those in force at present are well enforced. (Contagious disease and garbage ordinances, see report of 1893, p. 54.)
5. This town has no legal board of health other than the town council.
6. Mason B. Wood, health officer.
8. There have been some violations of the law requiring the prompt returns of deaths. All these, however, have been remedied.
9. Clergymen make returns of marriages promptly.

JAMES G. PECK, *Town Clerk.*

FOSTER.

6. Henry Arnold, M. D., health officer.
8. Undertakers are fairly prompt in making returns of deaths.
9. Clergymen are fairly prompt in making returns of marriages.

EMORY D. LYON, *Town Clerk.*

GLOUCESTER.

1. Nothing for the promotion of the public health has been done during the year.
4. No new ordinances have been adopted during the year.
6. George A. Harris, M. D., health officer.

7. Gratuitous vaccination has not been provided during the year.
8. Undertakers have made prompt returns of deaths.
9. Clergymen make returns of marriages promptly.

CHARLES W. FARNUM, *Town Clerk.*

JOHNSTON.

1. To the best of my knowledge, nothing for the promotion of the public health has been done during the year.

4. No new sanitary ordinances have been adopted during the year. The present ordinances are well-enforced. (Contagious disease and nuisance ordinances, see report of 1896, p. 20.)

5. Ralph H. Shaw, M. D., Charles A. Barnard, M. D., and Hiram Kimball constitute the board of health.

6. Ralph H. Shaw, M. D., town physician.

7. Gratuitous vaccination has been provided during the year. Out of an estimated population of 4,500, about 100 school children have been vaccinated.

8. Undertakers have made prompt returns of deaths.

9. Clergymen make returns of marriages promptly.

STERRY K. LUTHER, *Town Clerk.*

LINCOLN.

2. During the year water-pipes have been laid on Grove, Arnold, and Front streets. About 1,000 people are thus accommodated with Abbott Run water.

3. The village of Manville is the only place in town where there are sewers connecting with private residences. The Prospect Hill sewer has been extended some 800 feet. This is a sewer for surface drainage only.

4. (Contagious disease and nuisance ordinances, see report of 1896, p. 20.)

5. This town has no legal board of health other than the town council.

6. James W. Walker, M. D., health officer.

7. Gratuitous vaccination is provided for school children, of whom about 180 have been vaccinated during the year.

8. Undertakers have made prompt returns of deaths.

9. Clergymen make returns of marriages promptly.

CHARLES F. EASTON, *Town Clerk.*

NORTH PROVIDENCE.

1. Nothing for the promotion of the public health has been done during the year.
2. There has been no extension of the public water service of this town during the year.
3. This town has no sewage system.
6. Sanford E. Kinnecom, health officer.
7. Gratuitous vaccination has not been provided during the year.
8. Undertakers have made fairly prompt returns of deaths.
9. Clergymen make returns of marriages promptly.

THOMAS H. ANGELL, *Town Clerk.*

NORTH SMITHFIELD.

1. To the best of my knowledge, nothing for the promotion of the public health has been done during the year.
2. This town has no public water service.
3. This town has no sewage system.
5. This town has no legal board of health other than the town council.
6. Remington P. Capwell, M. D., health officer.
7. Gratuitous vaccination has not been provided during the year.
8. Undertakers are rather slow in making returns of deaths.
9. Clergymen make returns of marriages promptly.

CHARLES S. SEAGRAVE, *Town Clerk.*

PAWTUCKET.

1. Nothing for the promotion of the public health has been done during the year.
2. About 90 per cent. of the population of this city is supplied by the public water service.

The following extracts are taken from the report of the Board of Public Works :

WATER SERVICE.

Summary of Pumping at Nos. 1, 2, and 3 Stations for the Year Ending September 30, 1899.

Total expenses for the year.....	\$20,221 20
Total number of U. S. gallons pumped into reservoir.....	2,227,109,517

Total cost of raising 1,000,000 gallons into reservoir.....	\$9.07
Total cost of raising 1,000,000 gallons one foot high.....	.031
Average daily consumption of water in U. S. gallons.....	6,101,642
Maximum daily consumption of water in U. S. gallons.....	10,009,011
Minimum daily consumption of water in U. S. gallons.....	2,766,748

Respectfully submitted,

JOHN H. WALKER, *Chief Engineer.*

Table Showing Amount of Rain and Melted Snow, in inches, for the Year Ending September 30, 1899.

DAYS OF MONTH.	OCTOBER.	NOVEMBER.	DECEMBER.	JANUARY.	FEBRUARY.	MARCH.	APRIL.	MAY.	JUNE.	JULY.	AUGUST.	SEPTEMBER.	DAYS OF MONTH.
1	.....	.....	.....	‡0.26	‡0.14	.....	*†	.....	.....	.....	.....	.....	1
2	.....	.....	.....	.....	.....	0.25	.....	0.25	.....	.....	.....	0.45	2
3	.....	.....	.....	.....	0.45	.....	.....	.....	.....	.....	.....	0.88	3
4	.....	.....	.....	.....	‡0.11	1.29	.....	.....	.....	.....	.....	.....	4
5	0.87	.....	0.58	.....	.....	.....	.....	.....	.....	.....	.....	.....	5
6	.....	0.30	.....	‡0.17	.....	0.03	.....	.....	.....	.....	.....	.....	6
7	.....	.....	.....	1.16	.....	0.34	.....	.....	.....	.....	.....	.....	7
8	0.11	.....	.....	.....	‡1.07	.....	1.12	0.81	0.01	.....	.....	0.05	8
9	.....	.....	.....	.....	.....	0.02	.....	.....	.....	2.23	.....	.....	9
10	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	10
11	.....	1.62	.....	.....	.....	.....	.....	0.245	.....	.....	1.47	.....	11
12	0.81	.....	0.50	.....	.....	0.04	‡0.07	.....	.....	0.037	.....	0.69	12
13	.....	.....	.....	.....	‡2.65	.....	.....	0.04	.....	.....	0.015	.....	13
14	.....	0.20	.....	0.30	.....	.....	0.01	.....	*	.....	.....	.....	14
15	0.85	.....	.....	.....	.....	.....	.....	.....	0.287	.....	.....	.....	15
16	.....	.....	.....	1.05	.....	‡1.28	.....	.....	.....	1.105	.....	.....	16
17	.....	.....	.....	.....	0.375	.....	‡0.51	0.20	.....	.....	.....	.....	17
18	.....	.....	.....	.....	0.39	.....	.....	.....	.....	.....	.....	.....	18
19	0.96	1.65	.....	.....	.....	‡1.99	.....	.....	.....	.....	.....	.....	19
20	.....	.....	‡0.31	.....	.....	.....	.....	.....	0.095	.....	.....	6.05	20
21	.....	.....	.....	.....	.....	.....	0.09	0.20	.....	.....	.....	0.23	21
22	2.00	.....	.....	.....	.....	‡0.71	.....	.....	.....	0.35	0.10	.....	22
23	.....	.....	0.80	.....	.....	‡0.78	.....	.....	.....	.....	.....	.....	23
24	.....	0.32	.....	.....	.....	.....	0.40	.....	.....	.....	.....	.....	24
25	.....	.....	.....	‡2.11	.....	.....	.....	.....	1.510	.....	0.123	.....	25
26	.....	.....	.....	.....	.....	‡0.30	0.40	.....	.....	0.925	.....	0.20	26
27	2.03	‡2.34	.....	.....	0.42	.....	.....	.....	.....	0.07	.....	.....	27
28	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	28
29	.....	.....	.....	.....	.....	‡0.57	.....	0.29	.....	.....	.....	0.93	29
30	0.13	‡0.61	.....	.....	.....	.....	1.88	.....	1.65	0.085	.....	.....	30
31	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	31
	7.76	7.04	2.19	5.05	5.20	7.60	4.48	2.03	3.55	4.80	1.717	8.98	

Total rain, 60.39.

Total snow, 80 inches.

* Too small to measure.

† Snow.

‡ Snow and rain.

FILTER FIELDS.

Our filter fields have continued to dispose of the sewage of the Moshassuck river section in a satisfactory manner, yielding an effluent very much purer than the river water ever is.

The amount of sewage treated this year has been larger than in any previous year. The work of the plant is shown in detail by the following tables.

The following table shows the number of gallons of sewage received and treated at the plant during the year :

Month.	Gallons of sewage.	Av. galls. per day.
October, 1898.....	2,405,100	77,584
November, 1898.....	2,521,000	84,584
December, 1898.....	2,645,500	85,339
January, 1899.....	3,370,640	108,730
February, 1899.....	2,212,460	79,016
March, 1899.....	2,344,600	75,632
April, 1899.....	2,593,240	86,441
May, 1899.....	1,801,280	58,106
June, 1899.....	2,442,820	81,427
July, 1899.....	2,859,260	92,234
August, 1899.....	2,774,140	89,488
September, 1899.....	2,796,860	93,228
Total.....	30,766,900	

Average number of gallons per day has been 84,293.

Table showing Working of Beds from Dec. 1, 1894, to Oct. 1, 1899.

Number of bed.	Cubic yards of poor sand removed from Dec. 1, 1894, to Oct. 1, 1899.	Cubic yards of sludge removed from Dec. 1, 1894, to Oct. 1, 1899.	Average depth in inches of poor sand removed from Dec. 1, 1894, to Oct. 1, 1899.	Total number of gallons of sewage let out.	Cubic yards of poor sand removed for each 1,000,000 gallons of sewage.
1	67	88.45	4	4,323,702	15.49
2	75	83.68	4 $\frac{1}{4}$	4,539,130	16.52
3	65	82.34	3 $\frac{3}{4}$	3,556,871	18.27
4	62	84.61	3 $\frac{3}{4}$	3,223,154	19.23
5	94	.....	2 $\frac{1}{4}$	16,699,255	5.63
6	115	16.81	4	9,237,314	12.45
7	78	.....	3 $\frac{1}{4}$	9,267,090	8.42
8	95	.....	3 $\frac{1}{2}$	9,924,898	6.55
9	59	.....	2 $\frac{1}{2}$	11,006,266	5.36
10	82	.....	3 $\frac{3}{4}$	10,837,635	7.57
11	60	.....	2 $\frac{3}{8}$	10,961,625	5.47
12	61	.....	2	9,606,782	6.35
13	61	.....	2	9,627,012	6.34
	944	355.79		112,810,734	Average, 8.17

Began using beds 1-2-5-6-7 regularly on December 1, 1894.

Began using beds 8-9-10-11 regularly on January 1, 1895.

Began using beds 3-4 regularly on August 1, 1895.

Began using beds 12-13 regularly on November 1, 1895.

Began using bed 6 as a sludge bed in August, 1898.

Average number of cubic yards of poor sand removed per acre of filtering area, 402.9.

Average depth in inches of poor sand removed per acre of filtering area, 3.

Average number of cubic yards of sludge removed per 1,000,000 gallons sewage, 3.15.

GEORGE A. CARPENTER, *City Engineer.*

Total length of water mains connected with the Pawtucket water works.....144.38 miles.

Capacity of pumping engines 12,000,000 gallons per 24 hours.

Water pressure in Main street square 110 lbs. per square inch.

Total length of sewers.....43.83 miles.

Total length of electric railways.....23.52 miles.

3. About 26.10 per cent. of the population of this city is connected with the sewers.

4. (Rules relating to the removal and disposal of nightsoil and the contents of cesspools, see report of 1898, p. 22.) (An ordinance relating to the registration of deaths, see report of 1898, p. 23.)

RULES OF THE BOARD OF HEALTH.

1. All complaints relating to threatened or existing nuisances, or to any state or condition of things which is or may become deleterious to health, shall be made to the health officer of the city.

2. It shall be the duty of the health officer, whenever such complaint is made to him as aforesaid, to investigate said complaint, and examine the premises complained of within twenty-four hours from the time such complaint is made.

3. If, upon such examination, in his judgment a nuisance exists, or a condition of things which is or may become deleterious to health, he shall at once notify the owner or occupant of the premises to cause the same to be abated within forty-eight hours from the time of notice, and in case said nuisance is not abated within said period, the health officer shall make his report in writing to the mayor, setting forth the facts, with such recommendation as he deems advisable; and if the mayor deem the circumstances of the case to require it, he shall at once call a meeting of the board of health to take such further action as may be necessary in the premises.

4. The health officer shall make a report in writing to the board of health at least once in each month, and in such report he shall set forth the number of complaints made under these rules, and his action thereon.

5. All previous rules of the board of health are hereby repealed, and these rules shall go into effect immediately.

1. No person shall spit upon any part of any railroad station, railway station, waiting-room, steam-car, electric-car, public building, hall, church, theatre, market, or upon any sidewalk within the limits of the city of Pawtucket.

2. Any person violating the preceding rule shall be fined five dollars for each offence.

5. This city has no legal board of health other than the city council.

6. Byron U. Richards, health officer.

7. Gratuitous vaccination has been provided during the year, and about 1.5 per cent. of the population has availed itself of the same.

8. Undertakers are prompt in making returns of deaths.

9. Clergymen make returns of marriages promptly.

SAMUEL H. ROBERTS, *City Clerk.*

PROVIDENCE.

1. A large amount of work has been contemplated and executed during the year.

2. Extract from report of city engineer :

The population of the city is estimated at 168,000, and the population supplied in the suburbs is estimated at 10,900.

The number of meters in use in the city is 15,990, and the number of meters in use in the suburbs is 1,134.

The number of service pipes in use in the city is 19,582, and the number of service pipes in use in the suburbs is 1,438.

The average daily use of water per service for the year 1899 has been 455 gallons.

The average daily use of water per capita for the year 1899 has been 53 gallons.

The water receipts for 1899 were \$522,124.46.

The net cost of maintenance for 1899 was \$69,892.84.

The net cost of the water works construction from November 8, 1869, to January 1, 1900, is \$6,435,568.24, upon which there has been a revenue for water sold of \$8,878,214.35.

The monthly and annual and the average daily and monthly consumption of water in gallons, including waste and leakage, during the year is shown by the following table :

Month.	Consumption per Month.	Average monthly consumption.	Average daily consumption per month.	Average daily consumption for the year.
January.....	293,020,144		9,452,263	
February.....	266,836,105		9,529,861	
March.....	276,339,616		8,914,181	
April.....	255,689,521		8,522,984	
May.....	284,535,106		9,178,552	
June.....	335,426,161		11,180,872	
July.....	316,431,534		10,207,469	
August.....	313,636,225		10,117,298	
September.....	291,161,392		9,705,376	
October.....	283,551,690		9,146,829	
November.....	278,033,930		9,267,798	
December.....	295,489,815		9,531,930	
Total.....	3,490,151,148	290,815,929		9,562,058

The amount of water consumed, shown in the above table, includes the supplying of about thirty-four miles of distribution pipes, located in adjoining towns, as well as supplying the greater part of the State institutions at Cranston. A considerable quantity of water has been used during the year for irrigating at the Dexter Asylum, and also upon the improved sewerage system. Also, in the colder months, a large quantity of water has been run from the distribution pipes, through small blow-offs at different points where the pipes are not sufficiently protected in crossing bridges and elsewhere, for increasing the circulation in order to prevent the water from freezing in the pipes.

The maximum consumption of water for any one day during the year 1899 was 13,356,000 gallons.

The records relating to meteorological observations have been kept by this department.

Following will be found a table giving a summary of water works statistics prepared in accordance with suggestions adopted by the New England Water Works Association :

SUMMARY OF STATISTICS.—REPORT OF 1899.

In accordance with suggestions adopted by the New England Water Works Association. Providence Water Works, Providence county, R. I.

Population of Providence.....	168,000
Estimated population supplied in suburbs... ..	10,900
Date of construction.....	1870 to 1876.
By whom owned.....	City of Providence.
Source of supply.....	Pawtuxet river, in the town of Cranston.
Mode of supply:	

The water is pumped from the Pawtuxet river into a storage reservoir located upon a hill about one mile distant. From this reservoir it flows into the city by gravitation, directly supplying a second storage reservoir within the city limits, and also that portion of the city which is of sufficiently low elevation to be served by gravitation. To supply that part of the city of too high an elevation to be served by these reservoirs, a third reservoir is located in the town of North Providence. The water is pumped by supplementary pumping machinery from the second reservoir above mentioned or from the mains, into the high service reservoir. This supplementary pumping machinery can also supply the high service district, if the reservoir should be out of service, by pumping directly into the mains.

In addition to the regular distribution pipes there is an independent high pressure fire system (deriving its supply from the high service), for protecting an area of about one-half of one square mile in the centre of the business portion of the city.

PUMPING.

1 Builders of pumping machinery:		
<i>a.</i> Worthington Duplex engine, built by Henry R. Worthington.		
<i>b.</i> Cornish engine, built by Paulding, Kemble & Co.		
<i>c.</i> Corliss Vertical engine, built by George H. Corliss.		
<i>d.</i> Worthington Triple Expansion engine, built by Henry R. Worthington.		
<i>e.</i> Nagle High Service engine, built by the Providence Steam Engine Co.		
<i>f.</i> Holly High Service engine, built by the Holly Manufacturing Co.		
Worthington Triple Expansion.	Nagle High Service.	Holly High Service.
2 Description of coal used:		
<i>a.</i> Bituminous.	Anthracite.	Anthracite.
<i>c.</i>	Egg.	Egg.
<i>d.</i> George's Creek Cumberland.	Reading hard.	Reading hard.
<i>e.</i> Price, per gross ton delivered,		
\$3.98	\$5.04	\$5.17.
<i>g.</i> Wood, price per cord,		
\$4.50	\$5.00	\$5.00
3. Coal consumed for the year, in pounds,		
5,395,900	43,014	788,971
4. $\frac{\text{Pounds of wood consumed.}}{3} = \text{coal in pounds.}$		
300	40	1,019
5. Total fuel consumed for the year, (3)+(4) in pounds,		
5,396,200	43,054	789,988
6. Total pumpage for the year in gallons,		
3,692,751,000	22,749,951	504,259,180
7. Average static head against which pumps work,		
170.39	110.08	111.96
8. Average dynamic head against which pumps work,		
176.46	117.23	126.47
9. Number of gallons pumped per pound of coal (3).		
684	529	639

10. Duty in foot pounds per 100 pounds of coal, using following formula, making no deductions for starting or banking fires, heating buildings, or anything else.

$$\text{Duty} = \frac{\text{Gallons pumped (6)} \times 8.34 \text{ (lbs.)} \times 100 \times \text{dynamic head (8)}}{\text{Total fuel consumed (5)}}$$

100,710,400	51,662,100	67,326,600
-------------	------------	------------

COST OF PUMPING, FIGURED ON PUMPING EXPENSES, INCLUDING COST OF FUEL, SALARIES, OIL, WASTE, AND OTHER SUPPLIES, CLEANING EXGINES AND HOUSES, AND REPAIRING MACHINERY AND BOILERS, WAS \$15,750.84 FOR THE LOW SERVICE, AND \$5,599.92 FOR THE HIGH SERVICE.

- | | |
|---|----------------|
| 11. Per million gallons raised against dynamic head (8) into low service reservoir, the cost was..... | \$4.27 |
| Into high service reservoir (pumped twice, \$4.27+\$10.63) | 14.90 |
| 12. Per million gallons raised one foot high (dynamic), low service the cost was..... | 0.0242 |
| High service (pumped twice, \$0.0242+\$0.0843), the cost was+..... | 0.1085 |
| Net cost of works to date..... | \$6,435,568.24 |

CONSUMPTION.

- | | |
|---|---------------|
| 1. Estimated total population of district at date | 178,900 |
| 4. Total number gallons consumed for year..... | 3,490,151,148 |
| 7. Average daily consumption..... | 9,562,058 |
| 8. Gallons per day to each inhabitant..... | 53 |
| 10. Gallons per day to each tap (distribution 22)..... | 455 |

DISTRIBUTION.

MAINS.*

- | | |
|---|---------------------|
| 1. Kind of pipes used | Cast iron. |
| 2. Size..... | From 6 to 3 inches. |
| 3. Extended..... | 19,645.57 feet. |
| 4. Discontinued..... | 768.93 feet. |
| 5. Total now in use †..... | 318.4279 miles. |
| 8. Small distribution pipes, less than four inches, total length..... | None |

* Not including high pressure fire service.

† Includes 10,084 feet of 36-inch pipe, 561 feet of 30-inch pipe, and 695 feet of 24-inch pipe, which are force mains, and 19.66 feet of 30-inch pipe, and 19,478.46 feet of 24-inch pipe, which are used both as a force and delivery main.

9. Hydrants added*.....	39
10. Number now in use*.....	1,854
11. Stop gates added.....	46
12. Number now in use.....	3,331
14. Number of blow-off gates.....	32
15. Range of pressure on mains at centre of city for day and night.....	64 to 73 lbs.

HIGH PRESSURE FIRE SERVICE.

Kind of pipes used.....	Cast iron.
Size	12, 16, and 24 inch.
Total now in use †.....	5.5698 miles.
Hydrants added.....	1
Number now in use.....	92
Stop gates now in use.....	31
Number of blow-off gates.....	4
Pressure on mains at center of business portion of city for day and night.	114 lbs.

SERVICES.

16. Kinds of pipe used.....	Lead from $\frac{1}{2}$ to $1\frac{1}{4}$ inches, and cast iron.
17. Size.....	From $\frac{1}{2}$ to 10 inches.
21. Services added	606
22. Number now in use	21,020
25. Meters added.	736
26. Number now in use	17,124
27. Elevator supplies added.....	8
28. Number now in use, 134 of 4 and 6-inch, and 20 smaller supplies connected to house elevators.	

REMARKS.

The Cornish engine was not run during the year.

The Worthington Duplex engine was not run during the year.

The Corliss Vertical engine was not run during the year.

The Worthington Triple Expansion engine was run on 317 days.

The Nagle engine was run on 17 days.

The Holly engine was run on 301 days.

* Not including high pressure fire service.

† No connections of any description except for city fire hydrants.

The work in this department was in charge of Edmund B. Weston, assistant engineer, until May 1st, when he resigned. Irving S. Wood, assistant engineer, has been in charge since that time.

SEWAGE SYSTEM.

The construction of the precipitation tanks, section two, has been brought nearly to a close, there remaining only the finishing touches and cleaning up to do in the spring. The 88-inch conduit has been extended from its former end, near the pumping station, to the tanks. The sludge press house is now ready for the roof, and the sludge storage reservoirs are nearly completed. Most of the machinery necessary for operating the plant has been contracted for, and some of it delivered.

Plans for the other buildings necessary to the plant are in process of completion, and it seems probable that the time is not far distant when the process of precipitation may be begun.

Near the pumping station a screen house has been built and connected with the rider sewer of section five, for the purpose of screening the coarsest of the material from the sewage of the Elmwood district before it reaches the tanks.

The pumping machinery has run in a very satisfactory manner throughout the year, and the record shows a gain in total quantity pumped, caused by the connections made with section twenty-one and twenty-two, as before mentioned.

The total gallons pumped for the year is estimated at 5,101,046,934, at an expense for labor, fuel, work in screen chamber, and all other charges, of \$12,283.37, or \$2.41 per million gallons pumped, or \$.0888 per million foot gallons pumped. The average amount pumped daily is shown by the following table :

Daily average for the year	15,483,842 gallons.
Daily average for wet weather, or days in which the rain fall was enough to visibly affect the quantity pumped.....	17,709,905 gallons.
Daily average for dry weather.....	12,824,355 gallons.
Sunday average for dry weather.....	8,504,696 gallons.
Number of wet days.....	86
Number of dry days.....	279

This department has been charge of John E. Bowen, assistant engineer.

PUBLIC PARKS.

There are 532,017 acres of land devoted to the purpose of public parks. The largest park, known as Roger Williams park, contains 422,423 acres,

of which 117.44 acres is covered with water, forming a series of lakes. In these lakes are to be found five islands, the largest containing about thirty-five acres.

OTIS F. CLAPP, *City Engineer.*

5. The board of aldermen is the board of health. Dr. Charles V. Chapin is the superintendent of health.

7. Gratuitous vaccinations were afforded to a large number of school children, and a certain number of adults were vaccinated. A detailed report of this work will be found under the report of the health officer.

SCITUATE.

1. Nothing for the promotion of the public health has been done during the year.

2. This town has no public water service.

3. This town has no sewage system.

5. This town has no legal board of health other than the town council.

6. Alberto E. Wood, health officer.

7. Gratuitous vaccination has not been provided in this town during the year.

8. Undertakers make prompt returns of deaths.

9. Clergymen make returns of marriages promptly.

DANIEL H. REMINGTON, *Town Clerk.*

SMITHFIELD.

1. Nothing for the promotion of the public health has been done during the year.

4. (Nuisance and contagious disease ordinances, see report of 1894, pp. 48-50.)

5. This town has no legal board of health other than the town council.

6. Jencks Smith, health officer.

7. Gratuitous vaccination has not been provided during the year.

8. Undertakers make prompt returns of deaths.

OSCAR A. TOBEY, *Town Clerk.*

WOONSOCKET.

3. The aggregate length of sewers in this city is $1\frac{1}{2}$ miles. About one-thirtieth of the population is connected therewith.

The following extracts are from the report of the superintendent of water works department:

REPORT OF SUPERINTENDENT.

I have prepared the usual statistical tables which give in detail the work of the department during the year.

The pumping station and contents are in good condition. The amount of water pumped the past year has increased about 10 per cent. over last year. If this increase continues it will be necessary to enlarge our pumping plant in the near future.

The supply of water has been ample, but the quality has not been satisfactory during the summer months. With the receipts of the department more than sufficient to pay the maintenance, the surplus would pay the interest and cost of maintenance of a filtration plant; and in view of these facts I would recommend that during the coming year investigations be made as to the best method of filtering the water supply.

In compliance with your instructions I engaged Stone & Webster, electrical engineers, to make an electrical survey of the water mains. Their report to me is annexed to this report. You will observe that the amount of electricity flowing over the water mains is large, and voltage is above the average found in the various cities where they have made examinations. Their recommendation "that, wherever the main pipes, and particularly the service pipes along railway streets within half mile of the power house, are, on account of excavations, for any purpose exposed to view, you will note the condition of pipe and soil," I have carried out, and during the construction of the Main street sewer I examined all exposed pipes and have found many places where electrolytic action was taking place. I found several places where cast of quarter of an inch, several service pipes showing corrosion, lead joints of the hydrant branches show electrolytic action. The cause of this trouble is the electric current escaping from the rails of the St. R. R. Co., and if allowed to continue, will in time prove serious and expensive. There is a remedy—the Woonsocket Street Railway Co. should be compelled to so construct their tracks that the leakage of electricity should be reduced below the danger point.

During the year the reservoir No. 3 has been drawn to a point 3.83 feet below the overflow, and at the present time it is 2.5 feet below.

BYRON I. COOK, *Superintendent*.

REPORT TO BYRON I. COOK, SUPERINTENDENT WATER WORKS, ON ELECTROLYTIC INVESTIGATION OF WATER PIPING SYSTEM WOONSOCKET, R. I.

STONE & WEBSTER, Boston, Mass.

Byron I. Cook, Esq., Superintendent Water Works, Woonsocket, R. I.:

DEAR SIR:—At your request we have made an electrical survey of the water piping system of Woonsocket, to determine in a general way the probability of serious deterioration of the pipes from electrolytic action now going on, owing to current escaping from the street car rails.

We have found from the measurements taken, indications that the current flows, in quantities varying from small to large according to the number of cars moving, first from rails to pipes and then back on the rails again in finding its way by the easiest path to the power house. The places where it leaves the pipes are the only ones where electrolytic action will take place: hence only in the region of the power house is trouble likely to occur, except under conditions which we do not need to consider in this case.

As we were not asked to make a complete investigation, we did not have any holes dug for the purpose of examining the condition of pipes and soil in the power station district, the place where trouble would naturally be expected and where the voltmeter readings showed indications that it might well occur. We understand, moreover, that there has been no case in the city where a water pipe has been known to be eaten through and therefore become unfit for use, owing to electrolysis.

Within the conditions to which we were limited, however, we have found out enough to lead to the conclusion that there is likelihood of the water pipes, particularly the lead service pipes, now undergoing serious corrosion in places along the electric railway streets near the power house. If trouble is apparent it will probably be found, not along a large section of pipe, but limited to short lengths of a few feet or even a few inches, depending largely upon the condition of the soil. A dry soil is almost a non-conductor of electricity.

As a result of our investigation we recommend that wherever the main pipes, and particularly the service pipes, along railway streets within a half mile of the power house are, on account of excavations for any purpose, exposed to view, you note the conditions of pipes and soil, and that you always preserve for future comparison any pieces of pipe which you take out of the ground which seem to have suffered from corrosion of any kind. We further recommend that you continue to take voltmeter readings as you have before, as they are likely to be of value for comparison.

The list of readings in the appendix to this report will probably be useful to refer to in keeping watch of the conditions of your piping system

from now on. So long as no manifest case of electrolytic action has appeared, you will hardly have sufficient ground for complaint against the street railway company for threatened damage; but if trouble from electrolytic action once begins we believe from the conditions noted that it will break out frequently, and that the data with which you will be provided will serve for good evidence of the cause of trouble. We believe that any action which the railway company might now take to better conditions is simply what it ought to do, and not what it is bound to do.

Yours very truly,

STONE & WEBSTER.

APPENDIX A.—RECORD OF VOLTMETER READINGS.

Electrolytic Investigation of Water Piping System in Woonsocket, R. I.

(Appendix to report to Byron I. Cook, Superintendent.)

Hydrant to rail maximum readings 5-15-99, 10 A. M.

Main street opposite No. 28 : + 6 fluctuating and dropping off.

Main street opposite No. 165 : + 2 to + 4.

Main street opposite No. 238 : + 4 to - 2 car passing makes it - .

Monument square and Blackstone + 1. No car near.

N. Main st. opp. 275 : $\times 4$ to - 6 (- 6 = with car coming (up hill : + when car stopped.)

Blackstone and W. School : + 2 to - 1 mostly +, no car near.

Harris av. last in Woon. + 1 to - 4 largest - when car is climbing hill.

South Main and Glenark : - 2 to - 5 car climbing hill ; - 1 with no car near.

South Main at Old Bank Village + 1.5 to - 13 last in Woonsocket.

South Main opp. Woonsocket Hill Rd. : 0 to - 12 car passing up hill.

Providence st. last in Woon. : + 2 to - 6 - with car passing ; + with no car near.

Park avenue, last in Woon. + 1.5 to - 1 no car near.

Cass avenue at Mendon Rd. : - 5 to - 50 acc. to car.

With car stopped nearby : - 20 + quite steady showing disturbance from other car perhaps a mile off.

Social st. and Diamond Hill Rd. : + 2.2 to - 6 ; - with no car climbing up hill.

Reading taken for several minutes : + 2.2 to 1 most of time with no car near.

Cumberland st. at Kendrick ave : - 20 to - 2 acc. to car ; quite steady at - 20 with car climbing hill.

Little or no reading to ground at pumping station.

In front of Manville Co's office : - 20 to - 50 with car moving ; 0 with car still.

Reading to river close by about same, only in opposite direction.

Court and Main streets : + 2 to + 7, (10 min. reading, hydrant to ground + .2).

Cass av. at Mendon Rd. Readings taken every 10 seconds for about 10 minutes with car going towards Manville :

-28	6	28	20	30
10	20	32	9	26
32	8	32	18	30
34	24	34	0	30
24	16	34	6	38
20	2	34	16	38
16	1	24	18	44
0	20	24	20	40
1	26	26	10	0
28	1	32	14	0
16	28	30	1	18
12	10	32	20	0
0	26	36	28	16

Readings taken every 10 seconds for about four minutes, with car going towards Woonsocket :

-30	36	0	0	20
28	44	0	0	30
26	50	18	10	36
30	20	16	8	
30	0	18	20	

Cumberland street at Kendrick avenue — 10 to 20.

Rail to river + 10 to + 20, about, Hydrant to river almost 0.

Main st. near P. S., opp. No. 32, + 3 to + 12.

10 second Readings for about 6 minutes :

+ 8	9	2	6	8
8	4	2	4	6
6	8	4	5	6
6	5	6	6	6
8	8	8	6	6
7	6	8	6	7
9	4	7	5	8

Court and Front streets, 3:30 p. m. Points at which needle stopped without reference to time. Readings taken every few seconds :

+ 1	6	2	5	6
4	5	5	5	$\frac{1}{2}$
6				

6.5	$\frac{1}{2}$	4	6	5
4	$\frac{1}{2}$	6	6	4
6	1	6	6	3
2	4	6	6	4
4	5	5	4	4
3	4	6	4	5

APPENDIX B.

READINGS TAKEN ALONG SECTIONS OF TRACK.

5-24-99, 12 M. About 1,000 feet in either direction from corner of Cass avenue and Mendon Road; about 2 volts drop along track with cars in the neighborhood. (= .2 per 100 feet, maximum.)

2:20 P. M. Social street, from Diamond Hill Road to Elm street, along track, distance about 2,000 feet: $+ \frac{1}{2}$ to $+ 1 - \frac{1}{2}$, towards city. Car climbing hill. (= .075 per 100 feet, maximum.)

3:15 P. M. Harris avenue, about 2,000 feet of track a little north of Winter street: $+ 1$ to $+ 3$ (mostly 1) toward Woonsocket; cars passing. (= .15 per 100 feet, maximum.)

6-20-99, 11 A. M. South Main street, about 2,400 feet of track, Ballou street to junction of Old Bank and Woonsocket Hill Roads; maximum of 6 volts towards Woonsocket. Car probably in section. (= .25 per 100 feet, maximum.)

About 2,400 feet of track beyond the last to Charlie Paine's Hill; 4 to 6. Car passing up hill into section. (= .25 per 100 feet, maximum.)

12 M. Park avenue from last hydrant along about 2,400 feet of track north, 2 to 8 towards city. Reading taken for about five minutes. Car going out from city. (= .33 per 100 feet, maximum.)

2:30 P. M. Joe Cook's Hill, about 2,400 feet of track; $+ 1$ to $- \frac{1}{2}$. $+ =$ towards Woonsocket. Probably did not get full strength of current, as line was taken off before car climbed steep hill. (.04 per 100 feet, maximum.)

3:30 P. M. Manville Hill, 2,400 feet of track: $+ 4$ to $- \frac{1}{2}$. $+ =$ towards Woonsocket. Reading was — when car was coming up hill from Woonsocket. (= .17 per 100 feet, maximum.)

4:30 P. M. Mendon Road, 2,400 feet north from Walker's Switch; $- 3$ to $+ 1$. $- =$ towards Woonsocket. Car coming, probably. (= .13 per 100 feet, maximum.)

Data on Voltmeter Readings taken between Hydrants, etc., and Electric Car Tracks, also along Tracks, to show tendency of current flow, in the investigation of Electrolysis of Water Pipes.

CITY AND YEAR.	POSITIVE TO TRACK.				NEGATIVE TO TRACK.				READINGS ALONG TRACK PER 100 FT.				REMARKS.		
	No.	Max.	As Noted.	AV.	No.	Max.	As Noted.	AV.	No.	Max.	As Noted.	Min.		As Noted.	AV.
			+tending to flow to track.				-tending to flow to pipes.				+ & - refer to readings with regard to zero, but are immaterial as indicating direction of flow.				
Peoria, Ill.....	24	9.6	9.6	3.31	84	45	Max.....45	2.28	38	6.25	over	over	over	.505	
Peoria, Ill.....	28	8	+6 to +8	4.25	130	10	Several	2.72	10	333	+1.083 to +.333	.012	+-.042 to -.021	.18	
Providence.....	97	5	+5	2.10	46	10	-2 to -10	2.2	7	1.21					
Providence (Gas).....	97	5	+4 to +5	1.43	12	10	-2 to -10	2.42	16	.111	+-.055 to +.111	.003	+-.003	.041	
Paterson, N. J.....	78	6	+3 to +6	1.8	102	60	-1 to -60	5.32	64	6.25	over	over	over	.242	
Woonsocket.....	13	7	+2 to +7	3	50	5	-3 to -5	1.16	28	6.25	over	over	over	.008	
Boston.....	118	8	+2 to +8	1.21	178	7	-2 to -7	3.67	2	.125	+-.125 to -.063	.075	+-.05 to +.075	.1	
Boston.....	98	4	+1 to +4	1.3	206	8	-3 to -8	11.7	8	.75	+-.35 to +.75	.008	+-.02 to +.008	.379	
Boston.....	98	6	+1 to +6	1.41	206	5	-3 to -5	1.02	1	1.11	+-.055 to +.111	.014	+-.006 to +.013	.016	
All combined	639	9.6	9.6	2.20	1077	60	-1 to -60	2.26	64	6.25	over	+0.63 to over	+6.25	+-.003	.242
Paterson Ry. Co.....	98	6	+3 to +6	1.85	63	60	-1 to -60	3.67	13	.111	+-.055 to +.111	.014	+-.006 to +.013	.016	
Paterson C. E. R. R.....	98	4	+4	1.43	16	20	-6 to -20	3.85	1	.052	+-.052 to +.013	.052	+-.052 to +.013	.052	
N. J. R. Ry. Co.....	99	4	+2 to +4	1.43	23	50	0 to -50	11.7	1	.003	over	.003	over	.003	
Boston El. Ry. Co.....	97	109	+3 to +4	1.02	161	-6	-4 to -6	1.02	1	.003	+-.052 to +.013	.052	+-.052 to +.013	.052	
N. S. Ry. Co.....	97	9	+2 to +8	3.41	50	7	-2 to -7	2.63	1	.003	over	.003	over	.003	
W. R. & R. St. Ry. Co.....	97	3	+2 to +3	1.37	191	8	-3 to -8	1.31	1	.052	+-.052 to +.013	.052	+-.052 to +.013	.052	
Boston El. Ry. Co.....	98	4	+1 to +4	1.45	1	2	-1 to -2	2	1	.003	over	.003	over	.003	
W. R. & R. St. Ry. Co.....	98	2	+1	.75	10	4	-1 to -4	2.8	1	.003	over	.003	over	.003	
Q. & B. St. Ry. Co.....	98	4	.....	.....	4	4	-3 to -4	3	1	.003	over	.003	over	.003
Q. & B. St. Ry. Co.....	98	4	.....	.....	7	2	-1 to -2	1.29	1	.003	over	.003	over	.003
N. S. Ry. Co.....	99	4	+1 to +6	4.25	7	2	-1 to -2	1.29	1	.05	+-.025 to -.05	.05	+-.025 to -.05	.05	
W. R. & R. St. Ry. Co.....	99	2	+2 to +5	.5	7	3	-2 to -3	1.21	1	.083	+-.02 to -.083	.083	+-.02 to -.083	.083	
Q. & B. St. Ry. Co.....	99	3	.....	.....	2	3	-2 to -3	3	1	.083	+-.02 to -.083	.083	+-.02 to -.083	.083
Boston El. R. R. Co.....	99	101	+3 to +4	1.24	190	5	-3 to -5	1.14	1	.083	+-.02 to -.083	.083	+-.02 to -.083	.083	

This table is misleading if not used with discretion, as it only shows general tendencies.

SUMMARY OF STATISTICS; WOONSOCKET WATER WORKS DEPARTMENT,
CITY OF WOONSOCKET, COUNTY OF PROVIDENCE, STATE OF RHODE
ISLAND.

Population, 1899.....25,000.
Date of construction1884.
Source of supplyCrook Falls Brook.
Mode of supplyPump to tanks.

1. Builders of Tanks.

- No. 1. Cunningham Iron Works, 30 feet high, 50 feet diameter 442,780 gallons.
 - No. 2. Porter Manufacturing Co., 35 feet high, 50 feet diameter, 515,310 gallons.
 - No. 3. E. Hodge & Co., 30 feet high, 76 feet diameter, 1,020,705 gallons.
- Total capacity.....1,978,795 gallons.

2. Builders of pumping machinery { Henry R. Worthington.
Deane Steam Pump Co. }

3. Description of coal used { a. Bituminous coal, American Co.'s.
b. George's Creek, Maryland Co.'s.
c. \$4.01 (2,200).
d. 6.5% Ash.
e. Wood \$3.00 per cord.

- 4. Coal consumed for the year.....1,101,150 lbs.
- 5. Pounds of wood consumed for the year (754 ÷ 3)..... 251 lbs.
- 6. Total fuel consumed for the year, (4 ± 5).....1,101,401 lbs.
- 7. Total pumpage for the year in gallons..... 292,314,210.
- 8. Average static head against which pump works..... 237,909 feet.
- 9. Average dynamic head against which pump works..... 239,063 feet.
- 10. Duty $\frac{\text{Gallons pumped (6)} \times 834 \times 100 \times \text{dynamic head (8)}}{\text{Total fuel consumed (5) no allowance}}$ { 52,915,497.
- 11. Pounds of coal per million gallons pumped, 3,767 lbs., cost of pumping figured on pumping station expenses, viz..... \$3,728 45
- 12. Per million gallons raised against (dynamic) head into tanks \$12 75
- 13. Per million gallons raised 1 foot high (dynamic) .053 cost of pumping figured on total maintenance, viz..... \$30,473 83
- 14. Per million gallons raised against (dynamic) head into tanks..... \$104 25
- 15. Per million gallons raised 1 foot high (dynamic)..... \$.43
- 16. Amount received for 1,000 gallons based on pumpage and total revenue, viz: \$64,896.87..... \$.222

CONSUMPTION.

1. Estimated total population (including Manville extension).....	28,500
2. Estimated population on lines of pipe.....	26,500
3. Estimated population supplied.....	26,000
4. Total gallons consumed for the year.....	292,241,976
5. Average daily consumption.....	800,922
6. Gallons per day to each inhabitant (1).....	28
7. Gallons per day to each consumer (3).....	22
8. Gallons per day to each tap (distribution services 7)....	380

FINANCIAL.

In accordance with suggestions of the New England Water Works Association.

DIVISION I.—MAINTENANCE.

Receipts.

From consumers.

A. Water rates, domestic.....	\$36,461 47
B. Water rates, manufacturers.....	7,842 35
C. Net revenue for water.....	\$44,303 82
D. Miscellaneous, (rents, repairs and sales).....	99 96
E. Total.....	\$44,403 78

Due from public funds,

F. Hydrants.....	\$15,812 50
G. Fountains.....	1,646 44
H. Street watering.....	1,914 73
I. City departments.....	294 80
J. Public buildings.....	824 62
K. General appropriation.....	12,000 00
L. Gross revenue.....	\$76,896 87

Expenditures.

A.A. Management and repairs (book account).....	\$12,372 30
B.B. Interest on net cost Nov. 30, 1898.....	18,101 53
C.C. Total maintenance for the year.....	\$30,473 83
D.D. Balance.....	46,423 04
Total.....	\$76,896 87

DIVISION II.—MAINTENANCE.—*Continued.*

From fixed rates :	{	M. Domestic, \$2,092.37, not including water for city.	
		N. Manufacturing..	0
			<hr/>
		O.	\$2,092 37
From meter rates :	{	P. Domestic.....	34,369 10
		Q. Manufacturing..	7,842 35
			<hr/>
		R. Total.....	\$44,303 82

PUMPING STATION.

Boilers.

1. Type, horizontal tubular; number of boilers, three; size of two, 4 feet 6 inches x 14 feet; size of one, 6 feet 4 inches x 16 feet 2 inches.
2. Grate area.....50.5 square feet.
3. Steam pressure carried 55.6 lbs.

Pumps.

4. Type—One Worthington, compound, duplex, direct acting, with independent condenser.
Capacity—One million gallons in 24 hours.
5. Type—One Worthington, high pressure, duplex, direct acting, with independent condenser.
Capacity—One million gallons in 24 hours.
6. Type—One Deane, compound duplex, direct acting, with independent condenser.
Capacity—Two and one-half million gallons in 24 hours.
Capacity per revolution, as used in calculating duty (Deane), 70,000 gallons.
8. Static head on pump (Deane)..... 237,909 feet.
9. Dynamic head on pump (Deane)..... 239,063³/₄feet.
10. Number of days pumping 318 days.
11. Total pumping time in hours..... 2,866.50 hours.
12. Average pumping time per days..... 9.01 hours.
13. Average number galls pumped per days run..... 919,227 gals.
14. Average number gallons pumped per hour run..... 101,976 gals.
15. Total pumping station expenses, not including fuel... \$1,823 45

MONTHLY CONSUMPTION.

Month.	Avg. Consumption, 6 P. M. to 6 A. M.	Avg. Consumption, 6 A. M. to 6 P. M.	Total Avg. Daily Consumption.	Total Consump- tion for Month
Dec.....	205,938	485,826	691,764	21,444,698
Jan.....	195,539	475,725	671,264	20,869,185
Feb.....	226,100	508,703	734,803	20,574,493
March..	201,665	477,333	678,998	21,048,977
April...	201,002	512,021	713,023	21,390,692
May....	255,767	586,995	842,762	26,024,919
June....	271,172	731,163	1,002,335	30,070,068
July....	234,853	634,750	869,603	26,957,723
Aug.....	231,278	661,686	892,964	27,690,898
Sept....	226,853	624,779	851,632	25,548,937
Oct.....	232,297	591,409	823,706	25,534,088
Nov.....	249,540	588,673	838,213	25,146,401
Total.	2,732,004	68,790,063	9,611,067	292,241,979
Av'gs.	227,667	573,255	800,922	24,352,498

TOTAL YEARLY CONSUMPTION FROM 1885 TO 1899.

1885.....	53,884,669 gallons.
1886.....	88,924,946 "
1887.....	98,507,585 "
1888...9 months.....	74,158,335 "
1889.....	101,152,979 "
1890.....	120,325,893 "
1891.....	131,770,368 "
1892.....	153,527,852 "
1893.....	204,208,187 "
1894.....	205,086,916 "
1895.....	225,293,830 "
1896.....	259,429,005 "
1897.....	271,236,560 "
1898.....	269,565,878 "
1899.....	292,241,976 "

RAINFALL AT PUMPING STATION.

December.....	2.37 inches.
January.....	5.16 "
February.....	3.72 "

March	6.51	inches.
April	2.23	"
May	1.27	"
June	3.57	"
July	5.06	"
August	1.96	"
September	6.27	"
October	1.73	"
November	2.97	"
Total	42.92	"

6. William C. Monroe, M. D., Leonard S. Allen, and Henry A. Barsalou, health officers.

7. Gratuitous vaccination has not been provided in this city during the year.

8. Undertakers make prompt returns of deaths.

9. Clergymen make returns of marriages promptly.

WILLIAM C. MASON, *City Clerk.*

WASHINGTON COUNTY.

CHARLESTOWN.

1. Nothing for the promotion of the public health has been done during the year.

2. This town has no public water service.

3. This town has no sewage system.

4. There were no new sanitary ordinances adopted during the year.

5. This town has no legal board of health other than the town council.

6. H. Vernon Weaver, M. D., health officer.

7. Gratuitous vaccination has not been provided in this town during the year.

8. Undertakers make returns of deaths promptly.

9. Clergymen are fairly prompt in making returns of marriages.

GEORGE C. CROSS, *Town Clerk.*

EXETER.

1. Nothing for the promotion of the public health has been done during the year.
2. This town has no public water service.
3. This town has no sewage system.
4. There have been no new sanitary ordinances adopted during the year.
5. This town has no legal board of health other than the town council.
7. Gratuitous vaccination has not been provided in this town during the year.
8. Undertakers make fairly prompt returns of deaths.
9. Clergymen make returns of marriages promptly.

JOHN R. EDWARDS, *Town Clerk.*

HOPKINTON.

1. Nothing for the promotion of the public health has been done during the year.
2. This town has no public water service. •
3. This town has no sewage system.
4. There have been no new sanitary ordinances adopted during the year. (Contagious disease ordinances, see report of 1894, p. 59.)
5. This town has no legal board of health other than the town council.
6. George A. Langworthy, health officer.
7. Gratuitous vaccination has not been provided in this town during the year.
8. Undertakers make prompt returns of deaths.
9. Clergymen make returns of marriages promptly.

EDWIN R. ALLEN, *Town Clerk.*

NARRAGANSETT.

3. This district has about 20,000 feet of public and about 5,000 feet of private sewers, besides house connections. About 25 per cent. of the winter resident population, and about 60 per cent. of the summer population, have sewer connections.
6. Daniel A. Caswell, health officer.

7. Gratuitous vaccination has not been provided in this district during the year.
8. Undertakers are not prompt in making returns of deaths.
9. Clergymen make returns of marriages promptly.

W. HERBERT CASWELL, *District Clerk.*

NORTH KINGSTOWN.

1. Nothing for the promotion of the public health has been done during the year.
2. This town has no public water service.
3. This town has no sewage system.
4. (Nuisance and contagious disease ordinances, see report of 1896, p. 60.)
5. This town has no legal board of health other than the town council.
6. Harold Metcalf, M. D., health officer.
8. Undertakers make prompt returns of deaths.
9. Clergymen make returns of marriages promptly.

THOMAS J. PEIRCE, *Town Clerk.*

RICHMOND.

1. Nothing for the promotion of the public health has been done during the year.
2. This town has no public water service.
3. This town has no sewage system.
4. There have been no new sanitary ordinances adopted during the year. (Contagious disease and nuisance ordinances, see report of 1894, p. 61.)
6. Charles A. Fuller, health officer.
8. Undertakers make prompt returns of deaths.
9. Clergymen make returns of marriages promptly.

HALSEY P. CLARKE, *Town Clerk.*

SOUTH KINGSTOWN.

No reply from the town clerk.

4. (Contagious disease ordinances, see report of 1896, p. 64.)

WESTERLY.

The following extracts are taken from the report of the board of water commissioners :

The board, deeming it advisable to have analyses made each year of the water supply from the wells, submitted, in April, 1899, a sample of the water supply to Prof. Charles F. Chandler, of Columbia University, N. Y., for analysis. The report on the quality of the water, with the analysis submitted to us by Professor Chandler, also the opinion of Mr. C. E. Roberts, manager of the New England department of the Hartford Steam Boiler Insurance and Inspection Company, in regard to the quality of the water for steam boiler use, are particularly gratifying.

SUMMARY OF STATISTICS.

Report of 1898-9.

In accordance with suggestions adopted by the New England Water Works Association :

By whom owned.....Town of Westerly.

Works built by company in.....1886-87.

Purchased by town of Westerly in.....1898.

Source of supply.....Driven wells.

Mode of supply.....Pump to tank.

1. Builder of pumping machinery, Henry R. Worthington.
2. Description of coal used, George's Creek, Cumberland.
3. Coal consumed for the year, 808,300 pounds.
4. Total pumpage for the year, in gallons, 176,508,800.
5. Average static head against which pumps work, 195.
6. Average dynamic head against which pumps work, 200.
7. Number of gallons pumped per pound of coal, 219.
8. Duty, $\frac{\text{Gallons pumped (7)} \times 82\frac{1}{2} \times 100 \times \text{dynamic head (5)}}{\text{Total fuel (3) no allowance.}}$ 36,420,000.
9. Pounds of coal per million gallons pumped, 4,566.
Cost of pumping, figured on pumping station expenses. \$3,479 86
10. Per million gallons raised against (dynamic) head into tank..... 19.71
11. Per million gallons, raised one foot high (dynamic)..... 0.098
12. Cost of pumping, figured on total maintenance..... 16,882
13. Per million gallons raised against (dynamic) head into tank..... 95.64
14. Per million gallons raised one foot high (dynamic)..... 0.478

Consumption.

1. Estimated total population, Westerly.....	8,000
" " " Pawcatuck.....	3,000
	11,000
2. Estimated population on lines of pipe.....	8,000
3. Estimated population supplied to date.....	7,000
4. Total gallons consumed for the year.....	176,508,800
5. Average daily consumption in gallons.....	486,160
6. Gallons per day to each inhabitant (2).....	60
7. Gallons per day to each consumer (3).....	69
8. Gallons per day to each tap (services 4).....	523

Distribution.

1. Kind of pipe.....	Cast iron.
2. Size of pipe.....	4 to 12 inches.
3. Extended.....	196 feet.
4. Lowered.....	620 feet.
5. Changed to larger size.....	None.
6. Discontinued.....	None.
7. Total now in use, Westerly and Pawcatuck.....	20 $\frac{6}{10}$ $\frac{64}{10}$ miles.
8. Number of leaks per mile.....	.93
9. Hydrants added.....	1
10. Total now in use, Westerly.....	22
" " " Pawcatuck.....	18
" " " private.....	31
11. Total connected with works.....	71
12. Stop gates added.....	None.
13. Total now in use.....	122
14. Number of blow-off gates added.....	None.
15. Total now in use.....	4
16. Range of pressure on mains, centre of town, 82 to 92 pounds.	

Services.

1. Kind of pipe.....	Lead and iron.
2. Size of pipe.....	$\frac{1}{2}$ to 4 inches.
3. Services discontinued.....	8
4. Total now in use.....	930
5. Service taps added.....	47
6. Average cost of service per foot.....	\$0.29

7. Average cost per service.....	\$7.82
8. Meters added.....	46
9. Total now in use.....	676
10. Domestic.....	641
11. Manufacturers.....	35
12. Elevators and motors added.....	1
12. Total now in use.....	10

FINANCIAL.

MAINTENANCE.

From Consumers.

A Water rates, fixed.....	\$2,496 98
B Water rates, metered, and miscellaneous.....	13,155 51
C Hydrant rentals.....	798 60
D Net revenue for water from consumers.....	16,453 09
E Miscellaneous, services, etc.....	974 16
F Total.....	17,427 25

From Public Funds.

G Hydrants—a Pawcatuck Fire District.....	\$680 00
b Westerly Fire District.....	\$22 57
H *Fountains, (4) not metered.....	120 00
I *Street watering, and highways.....	50 00
J *Public buildings.....	10 00
K Gross revenue.....	19,109 82

Expenditures.

AA Management and repairs.....	\$7,194 80
BB Interest on net cost.....	9,687 50
CC Addition to sinking fund.....	2,354 00
DD Total maintenance for the year.....	19,236 30

Construction.

A From sale of pipe, asbestos, etc.....	\$79 40
B From maintenance account.....	388 19
C From water receipts.....	437 64
D Total receipts.....	905 23

* No cash income derived, but amounts charged and credited in annual report.

Expenditures.

E Pumping station, construction.....	\$2,855 07
F Pipe lines, services, etc.....	3,464 36
G Preparing and issuing bonds, etc.....	730 90
H Total expenditures.....	7,050 33
I Net expenditures.....	6,145 10
Total cost of works, May 1, 1898.....	\$268,920 85
Total net cost of works, May 1, 1899.....	275,065 95
Value of sinking fund.....	29,117 95

I wish to call your attention to the filters at the old pumping station. I have kept water running through and around these filters during the year, as much as possible, but nothing short of constant washing, or daily use, will prevent their rapid deterioration. I therefore recommend that they be taken down and disposed of, if possible, for, should occasion ever require their use, the expense of maintaining them in proper condition would probably be greater than that required to replace.

THOMAS MCKENZIE, *Superintendent.*

APPENDIX A.

[copy.]

BOSTON, April 17th, 1899.

T. MCKENZIE, Esq., Westerly Water Works, Westerly, R. I.

DEAR SIR:—Your favor of the 14th inst., in reference to the quality of water which you are using in your boilers, is at hand.

In reply would say that this compares *very favorably* with our *best* New England waters, as it forms practically *no scale* and does not seem to have any injurious effects.

Yours respectfully,

C. E. ROBERTS,

*Manager Hartford Steam Boiler Inspection
and Insurance Co.*

[copy.]

COLUMBIA UNIVERSITY.

DEPARTMENT OF CHEMISTRY, HAVEMEYER HALL,
116TH STREET AND AMSTERDAM AVENUE.

PROF. C. F. CHANDLER,
Telephone: 289 HARLEM.

NEW YORK, April 18th, 1899.

THOMAS MCKENZIE, Esq., Westerly, R. I.

MY DEAR SIR:—Enclosed please find my report of analysis of the sample of water received from you. You will see on examining it that

the water is *extremely pure*, about as pure as a city water supply can be. There is no evidence whatever of *any* kind of contamination, either from a sanitary point of view or from a manufacturing point of view.

Very sincerely yours,

C. F. CHANDLER.

No. 3191.

CERTIFICATE OF ANALYSIS.

NEW YORK, April 18th, 1899.

WATER COMMISSIONERS, Westerly, R. I.

GENTLEMEN:—The sample of WATER from T. McKenzie, marked Westerly, R. I., submitted to us for examination, gives on analysis the following results:

Appearance.....Clear.
 Color.....None.
 Odor (heated to 100° Fabr.)..None.
 Taste.....None.

Sanitary Analysis.

	Results Expressed in Grains per U. S. Gallon of 231 Cubic Inches.	Results Expressed in Parts by Weight in One Hundred Thousand.
Chlorine in Chlorides.....	0.5305	0.9100
Equivalent to Sodium Chloride.....	0.8742	1.4995
Phosphates (as P ₂ O ₅).....	None	None
Nitrogen in Nitrites.....	None	None
Nitrogen in Nitrates.....	0.0729	0.1251
Free Ammonia.....	0.0006	0.0010
Albuminoid Ammonia.....	0.0015	0.0026
Total Nitrogen.....	0.0754	0.1294
Hardness equiv. to } before boiling.....	0.6996	1.2000
Carb. Lime, } after boiling.....	0.6996	1.2000
Organic and Volatile (loss on ignition)....	0.3498	0.6000
Mineral Matter (non-volatile), CO ₂ restored with Ammonium Carbonate.....	3.0899	5.3000
Total Solids (by evaporation), dried at 110° C.....	3.4397	5.9000

Analysis for Manufacturing Purposes.

Remarks: Residue on Evaporation Pure White.

Sodium Chloride.....	0.8473	1.4534
Potassium Chloride.....	0.0349	0.0599
Calcium Sulphate.....	0.2006	0.3442

Calcium Carbonate.....	0.6189	1.0615
Magnesium Carbonate.....	0.2244	0.3849
Oxide of Iron and Alumina.....	0.0384	0.0660
Silica.....	0.7870	1.3500

Respectfully,

Your obedient servant,

C. F. CHANDLER, Ph. D.

For earlier report upon the character of the water tests made, see report of 1898, p. 43.

REPORTS OF
HEALTH OFFICERS.

1899.

CIRCULAR TO HEALTH OFFICERS.

CIRCULAR No. 131.

OFFICE OF THE SECRETARY OF THE STATE BOARD OF HEALTH,

PROVIDENCE, January 1, 1899.

To the Health Officer :

DEAR SIR :—**An important feature** of the annual reports of the Rhode Island State Board of Health is that of giving a connected history of the occurrence of contagious and epidemic diseases from year to year, as they may have prevailed in the different towns, whether epidemically or in a less degree, together with the location in the town (village or otherwise) and season of the year.

If the **proportion** of the **fatal** cases to the **whole number** of cases of the same **disease** could be given, the value of such reports would be very much enhanced. Such proportion can be ascertained only in such towns as *by town ordinance* require physicians to report all cases of such diseases as come within their charge.

An approximate proportion can, however, be given, after the subsidence of the disease, by inquiry of persons living in the immediate neighborhood of the prevalence of such disease, as to the number of the sick, or by house to house visitation where the sickness occurred, with the same inquiry, and by the comparison of the deaths with recoveries as so ascertained.

It is for the purpose of obtaining such information, in full or approximate, and also what may have been done to prevent and restrict diseases, that the questions in the inclosed circular are sent to the various health officers of the State.

To Health Officers who are not physicians, it may be said that the term **epidemic**, within the meaning of the questions proposed, is the prevalence of some disease to the extent of one or more persons affected with the disease to every five or six persons living in adjacent tenements or in the near neighborhood, or a smaller proportion, not less than one case of the disease

in every ten or twelve of the population, extending over a large area of territory. One sick in every twelve to sixteen persons might be called a **large prevalence**, and one sick in every twenty to twenty-five, a **moderate prevalence**. The number of cases of any one disease may have to be estimated, but make them as nearly correct as possible.

If, therefore, you will have the kindness to reply to the questions in the said circular, according to the best knowledge you have been able to obtain, and forward in the inclosed stamped envelope, you will favor one of the most important interests in the State, and greatly oblige,

Yours truly,

GARDNER T. SWARTS,

Secretary State Board of Health.

CIRCULAR No. 132.

DEAR SIR:—Replies to the following questions, as suggested in the accompanying circular (No. 131), are respectfully solicited; said replies to be made on this circular, following each question:

1. Name of town.

2. Name of health officer.

3. Have there been, within your knowledge, any epidemics, or any large prevalence of contagious or infectious diseases in your town during the past year? If so, of what disease or diseases? in what locality or localities? how many of each disease?* number of deaths? and in what months of the year?

Diseases.	Locality.	No. of cases.	No. of deaths.	Months in which they occurred.

4. Was isolation maintained or attempted?*

5. What proportion of the sick, if any, were isolated?

*According to the best knowledge obtainable.

6. Was any inspection of premises made, where sickness prevailed, as to the sanitary condition of the cellars, pantries, sinks, sink-drains, water-closets, if any, cess-pools, out-house privies, distance of wells from accumulations of filth, etc., etc.? If so, please give a general statement as to whether they were sanitarily in conditions good or bad, or, if any thing or place was unusually unsanitary, give a full description. Or, if the cause of any outbreak of disease was found, please state what.

7. Did you make any sanitary inspections during the past year, by order of the town council or from your own option? If so, what were they and how made?

8. Do you know of any location in your town that seems to be particularly unhealthy to any considerable number of persons? If so, and the cause is suspected, can such cause be removed at any reasonable expense?

9. Do you report to your town council nuisances dangerous to the public health, or unsanitary premises within your knowledge; or of buildings unsafe for occupants in case of fire? (See Chapter 495, Section 6, Public Laws.)

10. Has there, to your knowledge, been any contamination of any of the water, milk, or ice supplies in your town?

11. Please give names and addresses of dealers in ice in your town.

REPORTS OF HEALTH OFFICERS.

BRISTOL COUNTY.

1. BARRINGTON.

2. Charles H. Bowden, health officer.
3. The contagious diseases reported during the year were five cases of scarlet fever, during February and March. None of these were fatal.
4. Isolation was maintained.
5. All of the sick were isolated.
6. Inspection of premises where sickness prevailed was made, and found to be in good sanitary condition. It is thought that the disease was brought from out of town.
7. No sanitary inspections were made during the year.
8. No unhealthy localities in this town are known.
9. All public nuisances and unsanitary premises are reported to the town council, but not buildings unsafe in case of fire.
10. There has been, to my knowledge, no contamination of the water, milk, or ice supplies of this town.
11. E. Tiffany, of Barrington Centre, and William A. Leonard, of Drownville, are the ice dealers of this town.

1. BRISTOL.

2. George H. Peck, health officer.
3. Typhoid fever was quite prevalent during the summer months, there being forty cases of this disease. The other contagious diseases reported were as follows: chicken-pox, twelve; scarlet fever, nine; measles, two; and diphtheria, one. None of these cases were fatal.
4. Isolation was maintained.
5. All the scarlet fever and diphtheria cases were isolated.

6. Inspection of premises where sickness prevailed was made in each case, but sanitary conditions were found to be good, and no cause for the disease could be found.

7. On complaint, several cess-pools and water-closets were inspected.

8. No unhealthy localities in this town are known.

9. All public nuisances, unsanitary premises, etc., are reported to the town council.

10. There has been, to my knowledge, no contamination of the water, milk, or ice supplies of this town.

11. John P. Reynolds and Terence P. Morris are the ice dealers of this town.

1. WARREN.

2. Abraham Bowen, health officer.

3. Scarlet fever was prevalent during the months of September and October, there being sixteen cases of this disease. There were also a number of cases of mumps, the exact number of cases not being known, during the months of November and December. No deaths occurred from either disease.

4. In the scarlet fever cases, isolation was maintained.

5. All of the sick were isolated.

6. Inspections of premises where sickness prevailed were made, but no unusual unsanitary conditions could be found that would account for the presence of the disease.

9. All public nuisances, unsanitary premises, etc., are reported to the town council.

10. There has been, to my knowledge, no contamination of the water, milk, or ice supplies of this town.

KENT COUNTY.

1. COVENTRY.

2. John Winsor, M. D., health officer.

3. There were no epidemics in this town during the year.

4. Isolation was maintained.

5. All of the sick were isolated.

6. Inspections of premises where sickness prevailed were made, and were usually found in good condition.

7. Sanitary inspections were made when cases were reported.

8. No unhealthy localities in this town are known.

9. All public nuisances, unsanitary premises, etc., are reported to the town council.

10. There has been, to my knowledge, no contamination of the water; milk, or ice supplies of this town.

11. Manchester Bros., of Anthony, are the ice dealers of this town.

1. EAST GREENWICH.—No report from the health officer.

WEST GREENWICH has no health officer.

1. WARWICK.—No report from the health officer.

NEWPORT COUNTY.

1. JAMESTOWN.—No report from the health officer.

1. LITTLE COMPTON.

2. Adam S. MacKnight, health officer.

3. The contagious diseases reported were as follows: measles, one case in May; and scarlet fever, five cases, four of which were in November and one in February. None of these cases were fatal.

4. Isolation was maintained.

5. All of the sick were isolated.

6. Inspection of premises where sickness prevailed was made in every case, and sanitary conditions found to be good. The cases were all imported from neighboring towns.

7. One sanitary inspection was made at my own option. This was a case of an unburied, decomposing horse. I reported the same to the town council, who ordered it buried.

8. No unhealthy localities in this town are known.

9. All public nuisances, unsanitary premises, etc., whenever any such are brought to my notice, are reported to the town council.

10. There has been, to my knowledge, no contamination of the water, milk, or ice supplies of this town.

11. James L. Gray and A. Peckham & Sons are the ice dealers of this town.

1. MIDDLETOWN.

2. George E. Ward, health officer.

3. There were no epidemics in this town during the year.

6. There were no inspections of premises made.

7. All public nuisances, unsanitary premises, etc., when any such are brought to my notice, are reported to the town council.

8. No unhealthy localities in this town are known.

10. There has been, to my knowledge, no contamination of the water, milk, or ice supplies of this town.

11. The Newport Ice Company is the ice dealer of this town.

1. NEWPORT.

2. George C. Shaw, executive officer, board of health.

3. The contagious diseases reported during the year were as follows: typhoid fever, thirty-nine, with four deaths; scarlet fever, twenty-one, with no deaths; and diphtheria, nine, with one death.

4. Isolation was maintained.

5. All of the sick were isolated.

6. Sanitary inspections of premises were made in all cases, but no cause for the disease could be found.

7. Sanitary inspections of all privy vaults in the city were made, and those found to be two-thirds or more full were ordered cleaned.

8. No unhealthy localities in this city are known.

9. All public nuisances, unsanitary premises, etc., are reported to the city council.

10. There has been, to my knowledge, no contamination of the water, milk, or ice supplies of this city.

11. The Arctic, Citizens, and Newport Hygienic Ice and Water Companies are the ice dealers of this city.

1. NEW SHOREHAM.

2. Hamilton A. Mott, health officer.

3. There were no epidemics in this town during the year.
7. Sanitary inspections were made during the year.
8. No unhealthy localities in this town are known.
9. All public nuisances, unsanitary premises, etc., are reported to the town council.
10. There has been, to my knowledge, no contamination of the water, milk, or ice supplies of this town.
11. C. A. & M. L. Negus and H. S. Millikin are the ice dealers of this town.

1. PORTSMOUTH.

2. Minot A. Steele, M. D., health officer.
3. There were no epidemics in this town during the year.
6. Several inspections of premises were made, upon complaint.
7. No sanitary inspections were made during the year.
8. No unhealthy localities in this town are known.
9. All public nuisances, unsanitary premises, etc., when any such occur, are reported to the town council.
10. There has been, to my knowledge, no contamination of the water, milk, or ice supplies of this town.
11. William H. Tallman is the ice dealer of this town.

1. TIVERTON.

2. Edward P. Stimson, M. D., health officer.
3. There were seventeen cases of scarlet fever reported to me during the year. None of them, however, were fatal.
4. Isolation was maintained.
5. All of the cases were quarantined.
6. Inspections of premises where sickness prevailed were made, and sanitary conditions generally found good.
7. No sanitary inspections were made by order of the town council.
8. No unhealthy localities in this town are known.
9. All public nuisances, unsanitary premises, etc., are reported to the town council.

10. There has been, to my knowledge, no contamination of the water, milk, or ice supplies, of this town.

11. Brownell, of Tiverton, and Peckham, of Tiverton Four Corners, are the ice dealers of this town.

PROVIDENCE COUNTY.

1. BURRILLVILLE.

2. John Clavin, health officer.

3. There have been no epidemics or prevalence of disease in this town during the year.

4. There were no cases where isolation was necessary.

6. No inspections of premises where sickness prevailed were made, as there seemed to be no necessity for same.

7. I have caused to be abated a number of ordinary sink-drains, cess-pools, and other nuisances during the year.

8. No unhealthy localities in this town are known.

9. All public nuisances, unsanitary premises, etc., when any such come to my knowledge, are reported to the town council.

10. There has been, to my knowledge, no contamination of the water, milk, or ice supplies of this town.

11. The Pascoag Ice Co., and J. Ross, of Pascoag, Wood Bros., of Harrisville, and John Fields, of Nasonville, are the ice dealers of this town.

1. CENTRAL FALLS.

2. Charles F. Sweet, M. D., health officer.

3. There were no epidemics in this city during the year. Whooping-cough was quite common.

4. Isolation was maintained in all cases of scarlet fever and diphtheria. In cases of whooping-cough, chicken-pox, and mumps, the children were kept from school.

6. Inspections of premises where sickness prevailed were made, and sanitary conditions found to be generally good.

7. Sanitary inspections are made upon notification by anyone, in all cases of nuisance or unhealthy locality or thing.

8. No unhealthy localities in this city are known.

9. All nuisances not abated are reported to the board of aldermen. The building inspector attends to buildings unsafe in case of fire.

10. There has been, to my knowledge, no contamination of the water, milk, or ice supplies of this town.

11. The Central Falls, Pawtucket, East Providence, Seekonk, Moshassuck, South Attleboro, Crystal, and Union Ice Companies are the ice dealers of this city.

1. CRANSTON.

2. Daniel S. Latham, M. D., health officer.

3. There were no epidemics in this town during the year.

4. Isolation was always attempted, and, in most cases, maintained.

5. Seventy-five per cent. of the sick were isolated.

6. Inspections of premises were made only in suspicious cases. The sanitary conditions in most cases were good.

7. No sanitary inspections were made during the year.

8. Malaria seems to have been quite prevalent in the vicinity of stagnant water at the corner of Park avenue and Wellington street, Auburn. The cause can be removed only at expense of filling hole.

9. All public nuisances, unsanitary premises, etc., are reported to the town council in cases where measures were not taken by owners to abate same after due notice.

10. There is a contamination of the ice supply of Dyer's pond and Pocasset river by pollution from mills at Thornton.

11. The Crystal Ice Company is the ice dealer of this town.

1. CUMBERLAND.

2. William J. McGunagle, health officer.

3. There were no epidemics in this town during the year.

4. Isolation was not maintained.

6. No inspections of premises were made.

7. A number of unsanitary sink-drains, cess-pools, etc., were abated during the year.

8. No unhealthy localities in this town are known.

9. All public nuisances, unsanitary premises, etc., are reported to the town council.

10. There has been, to my knowledge, no contamination of the water, milk, or ice supplies of this town.

11. The Pawtucket Ice Company and Beach & Co. are the ice dealers of this town.

1. EAST PROVIDENCE. No report from the health officer.

1. FOSTER. No report from the health officer.

1. GLOCESTER.

2. George A. Harris, M. D., health officer.

3. Pertussis was quite prevalent during the latter part of the year, there being about thirty cases, none of which, however, were fatal.

4. Isolation was not maintained.

6. No inspections of premises were made.

7. No sanitary inspections were made during the year.

8. No unhealthy localities in this town are known.

9. I have had no occasion during the year to report to the town council any nuisances, etc.

11. Leward Hopkins and Fred Wilson, of Chepachet, are the ice dealers of this town.

1. JOHNSTON.

2. Ralph H. R. Shaw, M. D., health officer.

3. There were no epidemics in this town during the year. Only a few scattering cases in separated localities.

4. Isolation was maintained.

5. All cases were isolated.

6. In all cases of sickness sanitary inspections were made, and conditions found to be fairly good.

7. Sanitary inspections were frequently made upon complaint.

8. The stream leading through Thornton village to Cranston Print Works is in a most filthy condition, owing to wool washings and dye stuff from mills. The new filtering plant will prevent such contamination in the future, and stream can be cleaned out at small cost.

9. All public nuisances, unsanitary premises, etc., are reported to the town council.

10. There has been, to my knowledge, no contamination of the water, milk, or ice supplies of this town.

11. Merritt & Sons and the Hughesdale Ice Company are the ice dealers of this town.

1. LINCOLN.

2. James W. Walker, M. D., health officer.

3. There were no epidemics in this town during the year.

4. Isolation was maintained.

5. All of the sick were isolated.

6. All premises are inspected when a case of contagious or infectious disease exists; also when a nuisance is reported; and am proud to say that little if any changes could be made owing to the public having taken such an interest in the matter.

7. I have personally made inspections of all sanitary conditions where there is doubt of its being poor; and if found to be such, it is at once abated.

8. No unhealthy localities in this town are known.

9. All public nuisances, unsanitary premises, etc., are reported to the town council.

10. There has been, to my knowledge, no contamination of the water, milk, or ice supplies of this town.

11. The Manville, Spauldings's, Lonsdale, Moshassuck, and Saylesville Ice Companies are the ice dealers of this town.

1. NORTH PROVIDENCE.

2. Sanford E. Kinnecom, health officer.

9. All public nuisances, unsanitary premises, etc., are reported to the town council.

11. W. A. Sweet and John Leuthes, of Centredale, and Charles O. Angell, Harris Glicksman, and Herman Rasner, of Geneva, are the ice dealers of this town.

1. NORTH SMITHFIELD.

2. Remington P. Capwell, M. D., health officer.

3. Scarlet fever was quite prevalent in the town during the latter part

of the year, there being nineteen cases of this disease, none of which were fatal.

4. Isolation was maintained.
5. All of the sick were isolated.
6. All premises were inspected and found in fairly good condition. Repairs were made where necessary. The disease was probably imported from outside the town.
7. Sanitary inspections of school-houses and some private cess-pools were made during the year.
8. No unhealthy localities in this town are known.
9. All public nuisances, unsanitary premises, etc., are reported to the town council.
10. There has been, to my knowledge, no contamination of the water, milk, or ice supplies of this town.
11. Allan Schmoir, of Slatersville, and C. R. Day, of Millville, Mass., are the ice dealers of this town.

1. PAWTUCKET.

2. Byron U. Richards, M. D., health officer.
3. There were no epidemics in this city during the year.
9. All public nuisances, unsanitary premises, etc., are reported to the city council.
10. The only ice contamination known to me is the pollution of the Moshassuck river by manufacturing plants.
11. The City, Crystal, Pawtucket, Seekonk, and Union Ice Companies are the ice dealers of this city.

1. PROVIDENCE.

REMOVAL OF PRIVY VAULTS.

As has been the case during the past few years, particular attention has been given to the removal of privy vaults. I have always believed that the worst nuisance and the most dangerous nuisance in the city is the privy vaults. During the past year 480 vaults have been abolished, and only 659 remain on sewerred streets. Many of these belonged to that class of persons who never make improvements unless obliged to. These cases entail a great amount of work, and the chief inspector's time has been largely occupied with them. Thirty-five warrants were issued for persons

who persistently refused to obey the orders of your board, but most of the cases were discontinued on the payment of costs as soon as the work was completed. Special thanks are due the chief of police for his assistance in securing obedience to the orders of your board.

SWILL.

During the year swill was collected as heretofore by Messrs. A. H. & J. Barney. Their contract to collect and dispose of the swill at the rate of 15½ cents per capita per annum expired May 1st, and since that time they have continued to do the work under a temporary arrangement. The amount paid has been \$2,144.17 per month.

INSPECTION OF PROVISIONS.

The inspector of provisions has faithfully performed his work during the year and has done much to improve the quality of the goods sold, particularly the meat and poultry. Special attention has been given to the enforcement of the statute in regard to "bob veal," so called. A good deal has been seized and the business has been restricted, but considerable is still sold, as the profits of the business offer inducement for dealers to engage in it. The inspector devotes his attention to perishable goods only, meats, poultry, fish, vegetables, fruit, and the like. The detection of the adulteration of groceries is not a part of his work. There is no law of any value in this State concerning the adulteration of food. Such a law, with inspectors appointed by the State, would undoubtedly save consumers many times more than the execution of the law would cost.

BABY FARMS.

In 1898 there were eight baby farms licensed under Chapter 464 of the Public Laws. These eight parties were licensed to care for twelve children collectively. In 1899 there were 14 licenses for 35 children, but probably not more than one-third of that number of children were received for board at any one time. There are no baby farms in the ordinary acceptance of the term in the city, that is there are no places where large numbers of children are kept together under poor surroundings and with neglect of all sanitary precautions. This is owing partly to the new law and partly to the provision made by the St. Vincent de Paul Asylum and the Lying-in Hospital for those persons who would otherwise be patrons of baby farms.

DISINFECTION.

Disinfection after communicable disease in the city is not compulsory, and is only done at the request of the family. It is done by this department without charge. The following are the number of disinfections since 1888 :

YEAR.	Scarlet Fever.	Diphtheria.	Phthisis.	Miscellaneous.	Total.
1888-1894.....					1,210
1895.....	555	188	1	11	755
1896.....	338	558	16	27	939
1897.....	264	478	10	27	779
1898.....	223	129	20	14	386
1899.....	301	145	22	32	500
Total.....	1,681	1,498	69	111	4,569

Formaldehyde disinfection has been done in nearly every instance. During the first nine months Novy's apparatus was used, but during the last part of the year the sheet method, as used in Chicago, was adopted. Considerable steam disinfection is also done. Corrosive sublimate and formalin are left at nearly every infected house, with directions as to their use.

VACCINATION.

During the year 1899 the number of persons vaccinated was 2,863. The only public vaccination has been at the fourth ward room, on Fountain street, Saturday afternoons. Humanized virus is largely employed. The number of transfers of humanized virus in 1899 was 33, making the total number of transfers since 1868, when an accurate record was begun, 638. The number of certificates of vaccination issued was 2,650. The following table gives the number of persons vaccinated and the number of certificates issued from 1856 to 1890, and during each year since that time.

YEAR.	Persons Vaccinated,	Certificates Issued.
1856-1880.....	24,142	32,585
1881-1890.....	28,567	17,525
1891.....	1,738	2,112
1892.....	2,440	2,407
1893.....	1,905	2,359
1894.....	3,086	2,809
1895.....	1,511	2,050
1896.....	1,963	2,536
1897.....	2,218	2,900
1898.....	2,157	2,430
1899.....	2,863	2,650
Total, 1856-1899.....	72,590	72,363

CONTAGIOUS DISEASE HOSPITAL.

The contagious or "city ward" of the Rhode Island Hospital, a description of which may be found in my report for 1896, page 37, was built by the city on the grounds of the Rhode Island Hospital, and was opened January 13, 1896. The ward is maintained by the Rhode Island Hospital, and the city pays \$15 per week for every patient sent to the hospital by this department. During the year there were removed to the hospital under my direction ninety-three cases, and the total expense to the city for caring for them was \$4,390.06.

The Rhode Island Hospital first began to receive patients with scarlet fever and diphtheria in 1891, and the following shows the number of cases admitted since that time, and also the number of deaths that occurred in the hospital :

YEAR.	SCARLET FEVER.		DIPHTHERIA.		Total Cases.	Expense.
	Cases.	Deaths.	Cases.	Deaths.		
1891.....	6	0	4	1	10	\$486 43
1892.....	13	2	4	1	17	1,558 36
1893.....	20	1	5	1	25	1,267 77
1894.....	27	2	4	2	31	2,297 07
1895.....	37	0	27	3	64	3,614 78
1896.....	35	2	103	10	138	4,679 64
1897.....	22	2	57	6	79	4,924 35
1898.....	21	2	70	6	91	3,404 74
1899.....	40	2	47	3	93*	4,890 06
Totals.....	221	13	321	33	548*	\$26,618 20

* Measles, 6.

INFECTIOUS DISEASES.

Measles caused 27 deaths in 1899. Physicians are now required to report this disease; but comparatively few cases are reported, due chiefly to the fact that in measles the doctor is rarely called. The number reported in 1899 was 451, in 1898 it was 48, in 1897 it was 84, in 1896 it was 278.

Whooping cough caused 59 deaths in 1899.

Physicians are required to report certain communicable diseases, but sometimes neglect it. The following is the number of cases not reported since 1890:

YEAR.	Scarlet Fever.	Typhoid Fever.	Diphtheria.
1891.....	6	7	9
1892.....	6	6	1
1893.....	11	9	2
1894.....	24	12	1
1895.....	13	13	8
1896.....	6	13	10
1897.....	5	12	6
1898.....	11	33	6
1899.....	2	0	2

In addition to the above, during 1899, ten cases of scarlet fever, 5 of diphtheria, and 4 of small-pox were discovered by the medical inspector where there was no physician in attendance. The law requiring the report of measles is very often neglected, and only a small proportion of the unreported cases ever come to the notice of the health department.

The following pages contain an account of the cases of communicable disease that came under the notice of this department during the last sixteen years :

TYPHOID FEVER.

During the year there were 150 cases of typhoid fever reported. There were 42 deaths from this disease, the ratio of deaths to cases being 28.00.

In 9 instances there was more than 1 case in a house. In one house 5 cases, in three 3 cases, and in the others 2 cases. As is usual, a considerable number of the cases were contracted outside of the city.

DIPHTHERIA.

In 24 families, including 35 cases which were reckoned as diphtheria, at no time were any diphtheria bacilli found, and the diagnosis rested on clinical signs alone. In 11 of these families deaths occurred, and from only two of the persons who died was any culture taken by the physician. In one of these cases one culture was taken, and from the other two cultures on the day of death, but they were both negative. In 29 instances the attending physician did not take a culture, being satisfied from clinical signs that the case was diphtheria. In many of these the patient was very ill when the physician was called, and he did not deem it necessary to further disturb it by taking a culture. It appears then that in only about one quarter of the cases in this city during the past year did the physician venture to rely on clinical signs alone in making his diagnosis.

In 7 persons the first culture showed no bacilli present, but in five of these it was found on the second culture, and in two on the third culture. In 13 persons who were sick no diphtheria bacilli were found, though they were found in other members of the family. In 5 of these only 1 culture was taken, in 5 of them 2 cultures, and in 3 of them 3 cultures, none of which showed the presence of bacilli, although there were very good reason to believe that they were all cases of diphtheria.

During the year 3,574 cultures were examined for diphtheria bacilli, which indicates a far greater effort than has probably been made in any other city to search out and isolate those infected with this organism.

During the year there were 198 cases of diphtheria, with 33 deaths, or a ratio of deaths to cases of 16.66.

The following table shows the number and percentage of persons of different ages exposed to diphtheria who contracted it, and the number who did not. This table includes both the Klebs-Loeffer diphtheria and clinical diphtheria. When I began to collect these facts in 1889, the inspector was not careful to obtain the age in every case, so that until 1890 only a portion of the cases are contained in the table, and it was only since 1893 that the facts in regard to all the adults in the family were obtained.

The number exposed means all the members of the family where the disease occurred :

DIPHThERIA.

AGES.	CASES.							NUMBER EXPOSED. INCLUDING CASES.							Ratio of cases to number exposed.
	1889-90.	1891-95.	1896.	1897.	1898.	1899.	Total.	1889-90.	1891-95.	1896.	1897.	1898.	1899.	Total.	
Under 1 year	13	29	17	15	6	7	87	59	130	91	67	31	31	409	21.2
1 "	24	43	52	31	17	9	176	43	114	97	36	44	21	355	49.5
2 years.....	52	90	64	42	26	22	296	74	156	108	39	38	29	444	66.6
3 "	44	103	68	44	19	21	299	76	164	110	31	36	32	449	66.5
4 "	47	103	82	54	33	19	338	71	168	131	42	57	32	501	67.4
5 "	48	91	72	67	30	10	318	75	179	132	31	46	27	490	64.8
6 "	42	72	61	58	25	16	274	68	151	105	42	44	32	442	61.9
7 "	31	70	63	43	10	13	230	69	134	125	37	35	25	425	54.1
8 "	33	65	60	37	18	7	220	58	141	121	48	36	17	421	52.2
9 "	23	41	44	31	8	4	151	52	109	89	36	28	15	329	45.8
10 "	26	39	35	24	12	8	144	49	101	79	38	35	19	321	44.8
11 "	17	27	41	21	11	5	122	39	76	85	24	25	9	258	47.2
12 "	27	43	20	19	13	3	125	53	96	65	33	33	21	301	41.5
13 "	8	21	24	15	10	2	80	28	68	66	34	22	10	228	35.0
14 "	11	15	16	11	3	2	58	33	49	68	23	18	14	205	28.2
15 "	6	12	10	7	5	3	43	17	60	49	31	20	16	193	22.2
16 "	11	7	8	5	4	4	39	30	51	47	19	19	11	177	22.0
17 "	5	18	11	11	2	4	51	12	48	43	25	12	7	147	34.6
18 "	7	10	2	3	3	3	28	14	41	38	16	20	10	139	20.1
19 "	2	7	10	8	0	0	27	8	30	37	18	7	7	107	25.2
20 "	4	8	11	1	0	4	28	9	22	41	14	3	6	95	29.4
Adults	85	159	97	78	35	23	477	752	1286	1386	980	572	369	5345	8.9
Totals.....	566	1073	868	625	290	189	3611	1689	3374	3113	1664	1181	760	11,781	30.6

The cases which occurred in public institutions are not included in the above table.

On February 27th a case of diphtheria was reported at the Lying-in Hospital. The child was fifteen days old and was at once removed to the Rhode Island Hospital, where it died the next day. A culture taken February 27th showed diphtheria bacilli present. On February 28th a culture was taken from the throats of all the mothers and children and nurses in the hospital, with the result that all were negative except two, in which there was no growth on the tube. On March 4th another child six months old became sick, and a culture from the throat showed the presence of diphtheria bacilli. Two days later he was removed to the Rhode Island Hospital. On March 6th and 7th cultures were taken from both the throat and nose of every person connected with the institution, including the visiting physician. Diphtheria bacilli were found in three persons, one of whom was removed to the Rhode Island Hospital. By this time it was determined to utilize a small house in the rear as a detention ward for all persons in the institution who were found to have diphtheria bacilli in their throats or nose. In all eight examinations were made of all persons in the institution to weed out those who showed the bacilli. The last of these cultures was taken March 19th, after which the main hospital was disinfected thoroughly with formaldehyde, corrosive sublimate and steam. The infected persons in the detention ward were not discharged until three successive negative cultures had been obtained. This house was then disinfected. There has since then been no diphtheria in the institution, but no cultures have been taken to show whether diphtheria bacilli still persist. On March 6th antitoxin was administered to every one in the institution. After that date there was no one who appeared to be sick with diphtheria, but on April 11th one child died with what appeared to be diphtheritic paralysis, though he had not at any time been appreciably ill.

At the Rhode Island Institute for the Deaf, during 1898, there had been several cases of not very severe sore throats, which, on examination, showed the presence of diphtheria bacilli. These cases were always isolated and generally removed to the Rhode Island Hospital. After the last case in 1898 on December 15th every person connected with the institution had a negative culture from the throat. During the winter and spring of 1899 there were fifteen cases of sore throat in the school which were examined with negative results. On November 13th a case was found with diphtheria bacilli present, and on November 17th every throat was again examined, with the result of discovering two infected with diphtheria bacilli. On the 19th cultures were taken from both the throat and nose of each per-

son, resulting in the discovery of over a dozen cases infected with diphtheria bacilli. Similar examinations were made on November 21st, 25th, and 27th. The infected persons were isolated and kept so until two or three successive negative cultures were obtained from both throat and nose. Pretty thorough disinfection was secured by the use of formaldehyde and corrosive sublimate, and some of the wards were disinfected several times. At the time of the Christmas vacation the institution was apparently free from diphtheria bacilli, and the children were sent to their homes. Afterwards they returned to the school, and on January 7, 1900, another case was discovered, and, at the present writing, February 8, 1900, the school is not free from infection.

On December 29th a child died at St. Vincent's Asylum of diphtheritic croup, but subsequent history of the infection at this institution must be left for another report, as the card still remains up at the present writing.

The following table is similar to that found on page 77, but contains only cases from families in which Klebs-Loeffler bacilli were found. It does not include institution cases.

CASES FROM FAMILIES WHERE KLEBS-LOEFFLER BACILLI WERE FOUND.

AGES.	CASES.					NUMBER EXPOSED.					Ratio of cases to number exposed.
	1896.	1897.	1898.	1899.	Totals.	1896.	1897.	1898.	1899.	Totals.	
Under 1 year.....	11	10	6	5	32	66	63	32	29	189	16.9
1 "	37	27	17	3	84	77	33	44	10	164	51.2
2 years.....	48	36	26	18	128	91	35	38	23	187	68.4
3 "	49	37	19	17	122	94	27	36	26	183	66.6
4 "	61	50	33	15	159	114	38	57	25	234	67.9
5 "	48	62	30	10	150	113	28	46	24	211	71.0
6 "	47	54	25	12	138	91	38	44	24	197	70.0
7 "	47	41	10	12	119	104	29	35	22	190	57.8
8 "	50	36	18	6	110	102	43	36	15	196	56.1
9 "	39	29	8	4	80	73	33	28	12	146	54.7
10 "	30	22	12	8	72	66	35	35	15	151	47.6
11 "	31	16	11	4	62	79	23	25	7	134	46.2
12 "	13	17	13	3	46	49	29	33	18	129	35.7
13 "	19	13	10	2	44	53	30	22	9	114	38.5
14 "	13	11	3	2	29	59	21	18	14	112	25.8
15 "	10	4	5	3	22	40	29	20	12	101	21.7
16 "	8	5	4	3	20	33	16	19	10	78	25.6
17 "	10	9	2	4	25	32	23	12	5	72	34.7
18 "	2	3	3	2	10	26	11	20	7	64	15.6
19 "	8	6	0	0	14	29	13	7	6	55	25.4
20 "	5	1	0	3	9	31	13	3	5	52	17.3
Adults.....	75	64	35	10	192	995	862	572	309	2,738	7.0
Totals.....	661	553	290	154	1,658	2,417	1,472	1,181	627	5,697	29.1

The following shows certain facts in the natural history of diphtheria :

	1890-90.	1891-95.	1896.	1897.	1898.	1899.	Totals.
Number of families in which there was more than one child.....	233	574	433	326	161	107	1,834
Number of these in which there was more than one case	89	179	172	125	57	35	657
Number of children in all the above families	894	1,614	1,690	1,262	642	458	6,560

	1889-90.	1891-95.	1896.	1897.	1898.	1899.	Totals.
Number of these children who were attacked	422	750	793	578	287	191	3,021
Number of additional families with children in the same house.	97	329	323	254	119	79	1,201
Number of children in these families	262	854	898	665	311	199	3,189
Number of these additional families attacked	18	24	30	9	11	2	94
Number of children in these families who were attacked	25	28	55	26	12	7	153
Number of tenements which were disinfected where there were other families with children in the house.....	23	108	192	188	82	59	652
Number of instances of the above where the disease spread to other families in the house....	5	10	11	9	11	1	47
Number of well children who were at once removed	54	202	141	176	71	57	701
Number of those who were attacked on their return.....	2	7	0	3	1	0	13

As in previous years, the safety of other families in the house is shown to be very great. In only 2 of 79 cases did the disease extend beyond the first family attacked. But in three other instances diphtheria bacilli were found in other than the initial family. In all of these cases communication was free between the families. In no case did the disease extend beyond one family, where there was any isolation at all. Of the 57 children who were sent away from home, not one acquired the disease on its return to its home after the card had been removed. In other houses, when the sick person was removed to the hospital not one of the 24 children left at home was attacked after the return of the sick one from the hospital.

The following table shows the number of persons exposed to diphtheria who had diphtheria bacilli in their throats, and who were not sick, and also the number exposed, in the same families, who did not have bacilli in their throats, and who were not sick. This table may profitably be compared with the table on page 77, which shows the number of exposed persons who were sick :

WELL PERSONS IN FAMILIES WHERE THERE WAS DIPHTHERIA WHOSE
THROATS WERE EXAMINED FOR DIPHTHERIA.

AGES.	PERSONS EXAMINED.				NUMBER IN WHICH BACILLI WERE FOUND.				Percentage.
	1897.	1898.	1899.	Total.	1897.	1898.	1899.	Total.	
Under 1 year	36	3	18	57	6	.....	2	8	14.0
1 "	34	11	14	59	5	.....	1	6	10.1
2 years	32	3	12	47	11	.....	2	13	27.6
3 "	28	7	16	51	9	4	1	14	21.4
4 "	34	9	15	58	10	5	7	22	37.9
5 "	29	8	16	53	4	3	1	8	15.0
6 "	43	7	17	67	15	4	6	25	37.3
7 "	36	10	18	64	8	2	5	15	23.4
8 "	41	6	11	58	8	3	3	14	24.1
9 "	34	10	10	54	5	6	1	12	22.2
10 "	37	9	15	61	9	3	2	14	22.9
11 "	20	11	6	37	2	2	.....	4	10.8
12 "	29	9	16	54	7	4	2	13	24.0
13 "	34	5	6	45	5	4	1	10	22.2
14 "	21	10	13	44	3	3	4	10	22.7
15 "	23	2	14	39	2	1	.....	3	7.6
16 "	12	4	7	23	1	.....	2	3	13.0
17 "	16	5	4	25	3	3	1	7	28.0
18 "	13	5	8	26	1	1	.....	2	7.6
19 "	9	4	7	20	2	1	.....	3	15.0
20 "	10	1	1	12	.....	.....	.....	.....	.....
Adults	653	159	336	1,148	74	33	46	153	13.3
Totals.	1,224	298	580	2,102	190	82	87	359	17.0

All the persons above mentioned who had diphtheria bacilli in their throats were isolated just as if they presented clinical symptoms. Of the 74 persons isolated 30 were children, and of the 44 adults 20 were women.

During 1897 and 1898 no record was kept by this department of the use of antitoxin. During these years the use of this remedy undoubtedly increased, and it was deemed advisable in 1899 to again collect data in regard to it. In all antitoxin was given to 106 persons, of whom 17, or 16.04 per

cent., died; 30 of these were treated in the hospital, and of these 5, or 16.66 per cent., died. There were 94 cases of diphtheria in which antitoxin was not used, with 16 deaths, giving a fatality of 17.02. In 12 of the cases and 3 of the deaths where antitoxin was used, either no culture was taken, or else no bacilli were found. In all the others treated with antitoxin diphtheria bacilli were found. It may fairly be said, I think, that in the majority of the milder cases antitoxin is not given, so that as a rule the non-antitoxin cases are not so severe as the antitoxin cases, but whether this is sufficient to account for the apparent failure of antitoxin to give the results reported from other cities I am not prepared to say. Antitoxin was used for immunization in 17 instances in private families, in none of which the disease afterwards developed. It was used in about sixty persons at the Lying-in Hospital. One of the little children so treated died about four weeks after injection, apparently of diphtheretic paralysis, although it had not been otherwise sick. Most of the antitoxin used was distributed by the State board of health, very little being furnished by this department.

There were 11 deaths from croup, and one case of croup which did not die. In several of these, cultures were taken, and no diphtheria bacilli found. If these 12 cases of croup should be counted in with the cases in which antitoxin was not used (for it was used in none of them), the fatality would be 23.58.

SCARLET FEVER.

During the year there were 488 cases of scarlet fever, with 19 deaths, or a ratio of deaths to cases of 9.24.

The following table gives the result of my observations, during the past twelve years, concerning certain points in the etiology and prevention of scarlet fever. This table, for the years previous to 1892, does not include all the families and cases :

	1887-90.	1891-95.	1896.	1897.	1898.	1899.	Totals.
Number of families in which there was more than one susceptible child	615	1,600	305	174	178	267	3,139
Number of these in which there was a second case.....	334	711	128	58	68	90	1,389
Number of susceptible children in all the above families.....	2,270	5,571	1,032	641	655	992	11,164
Number of these children who were attacked	1,191	2,935	526	318	322	477	5,772

	1887-90.	1891-95.	1896.	1897.	1898.	1899.	Totals.
Number of additional families with susceptible children in the same house.....	273	817	197	132	113	206	1,738
Number of susceptible children in these families	799	2,259	545	340	295	628	4,866
Number of these additional families attacked	45	94	16	6	7	5	173
Number of children in these families who were attacked.....	81	157	41	9	12	9	309
Number of tenements disinfected where there were other families with susceptible children in the house.....	119	374	139	86	84	137	939
Number of above where the disease spread to other families in the house.....	10	9	10	0	7	0	36
Number of susceptible children who were at once removed....	60	374	174	106	82	134	930
Number of these who were attacked on their return.....	4	20	5	0	4	0	33
Number of children who were exposed and who had previously had scarlet fever.....	....	278	112	62	63	73	588
Number of these who were attacked a second time.....	....	40	20	3	12	10	85
Number of adults who were exposed and who had previously had scarlet fever .....	....	541	120	79	87	155	982
Number of these who were attacked a second time.....	....	10	1	0	1	0	12
Number of families with susceptible children where there was isolation.....	....	285	51	48	42	64	490
Number of families where more than one child was attacked....	....	97	17	27	11	18	170
Number of susceptible children in families where there was isolation.....	....	758	161	143	154	220	1,436
Number of the above who were attacked.....	....	309	83	60	60	104	616

Of the 206 instances where there was more than one family in the infected house the other families were invaded in only 5 cases, and in all of these there was free communication between the families, and in 3 of these the disease spread from the initial family before the disease was recognized, or at least before the case was reported. In no instance did

the disease spread to another family after the card was removed. Of the 134 children who were removed from home as soon as the disease was recognized, 4 were attacked while away, 1 on the first day, 1 on the fourth day, 1 on the sixth day, and 1 on the seventh day after removal. These were probably infected before removal. The others escaped both while away and after their return. Patients were removed to the hospital from 22 families in which there remained 53 susceptible children, of whom one was attacked on the return of the patient from the hospital. In that case the patient was taken sick November 21st, went to hospital November 23d, returned December 27th, and the other child was taken sick January 3d. When the inspector called January 4th the hospital child was desquamating freely, though the hospital authorities stated that there was no sign of desquamation when it left the hospital.

The following table shows the number and percentage of persons of different ages exposed to scarlet fever who contracted it, and also the number who did not. When I began to collect these facts the inspector was not careful to obtain the age in every case, so that until 1890 only a portion of the cases are contained in the table, and it was only in 1894 that the facts in regard to all adults in the family were obtained :

SCARLET FEVER.

AGES.	CASES.							NUMBER EXPOSED, INCLUDING CASES.							Ratio of cases to number exposed.
	1887-90.	1891-95.	1896.	1897.	1898.	1899.	Total.	1887-90.	1891-95.	1896.	1897.	1898.	1899.	Total.	
Under 1 year	29	117	10	11	7	8	182	117	425	49	24	38	61	714	25.4
1 "	39	160	34	15	9	21	278	93	362	34	19	37	57	602	46.1
2 years	108	257	43	24	29	30	491	193	478	32	23	44	54	824	59.5
3 "	108	320	54	32	31	41	586	190	554	25	19	46	76	910	64.3
4 "	116	309	59	35	25	60	604	186	518	26	16	42	87	875	69.0
5 "	91	383	61	32	41	61	669	197	621	24	13	61	88	1,004	66.6
6 "	113	348	52	30	32	49	624	188	559	27	12	47	78	911	68.4
7 "	103	326	53	32	32	47	593	169	581	23	15	48	72	908	65.3
8 "	83	223	43	31	17	30	427	168	436	30	10	36	53	733	58.2
9 "	74	194	27	18	19	31	363	166	380	21	17	39	53	676	53.6
10 "	51	157	33	14	15	17	287	96	339	19	15	38	46	553	51.8
11 "	43	113	23	4	10	22	215	104	252	19	16	26	49	466	46.1
12 "	34	104	23	8	8	10	187	104	266	22	13	21	32	458	40.8
13 "	33	69	7	6	12	5	132	83	199	24	14	23	35	378	34.9
14 "	21	67	11	4	8	8	119	76	191	23	19	23	35	367	32.4
15 "	18	41	8	2	1	6	76	67	142	13	13	12	26	273	27.8
16 "	12	33	8	4	1	2	60	47	139	20	16	14	18	254	23.6
17 "	8	28	5	3	1	5	50	33	104	15	18	12	19	201	24.8
18 "	4	19	3	.....	5	3	34	10	98	19	14	15	17	173	19.6
19 "	6	17	3	5	.....	4	35	16	86	22	12	10	17	163	21.4
20 "	8	17	.....	.....	2	2	29	18	76	23	8	12	11	148	19.5
Adults	42	169	23	13	15	15	277	106	2,952	838	506	510	792	5,704	4.8
Total	1,144	3,471	583	323	320	477	6,318	2,427	9,758	1,348	832	1,154	1,776	17,295	36.5

Besides the above, one case occurred at the Home for the Society for the Prevention of Cruelty to Children, January 4th, and one at Brown University, April 30th, both of which were removed to the Rhode Island Hospital, and no other cases developed. On January 4th there was a case at St. Aloysius Asylum, which was removed to the hospital, and no other case occurred there until October 8th, when another case was removed to

the hospital. On October 18th and November 22d an additional case was removed. At the St. Vincent's Asylum a case was discovered and removed April 7th, and another on the 10th. On April 27th another case was found which was desquamating, and on careful inquiry it was decided that the child had probably been slightly ill with the disease on April 10th, and during the entire interval had been mingling freely with about seventy-five children from two to four years of age, yet during this time only three cases of scarlet fever developed, namely, on April 10th, 15th, and 26th.

SMALL-POX.

On February 20th a case of small-pox was discovered by Dr. G. T. Swarts in his skin clinic at the Rhode Island Hospital. The patient had been sitting with the other patients for some time before he was discovered. He was speedily removed to the hospital at Field's Point, and the outpatient apartments were disinfected with sulphur dioxide and washed with corrosive sublimate. The patient was a seaman on schooner *Gracie A. Buchanan*, which had sailed from Newport News, January 30th. On the preceding night the patient had been confined in jail at Newport News, and previous to that time he had been on his vessel since he left Providence, January 17th. There was said to be no small-pox in Newport News, but there was much in the vicinity. He said that he began to feel sick February 11th, while at sea. Between the arrival of the *Buchanan*, February 14th and February 20th, he had been at a sailors' boarding house at the rear of 62 Wickenden street. The rooms that he occupied were disinfected with formaldehyde gas and by spraying and washing with corrosive sublimate, and all textiles were treated by steam. The fore-castle of the *Buchanan* was disinfected in the same way. Of course all persons exposed were, if possible, vaccinated; but the keeper of the house, who had been vaccinated a number of years before, refused to be re-vaccinated. The patient was never vaccinated. The disease, however, ran a mild course, and he was discharged from the hospital March 20th, after disinfection in a corrosive sublimate bath. His clothes were either steam disinfected or were entirely new.

On April 20th the keeper of the boarding house at 62 Wickenden street was found to have a mild attack of small-pox which probably dated from April 16th. Another Portuguese sailor, Julio G——, who roomed with the keeper was taken sick at about the same time. Both patients were removed to the hospital on April 20th and the apartments disinfected as before. These cases were both mild and were discharged with the usual

precautions May 16th and 18th. It appears to be probable that both these cases were developed from the first case at that house through some unrecognized case which had been hidden there between the outbreaks, and which was contracted from the first case on his return from the hospital. One of these cases was discovered by the attorney who owned the house, and to whom the keeper came to pay the rent. The other case, Julio G——, was discovered by Dr. Chas. H. Leonard, when he went to the house to vaccinate the inmates. This patient was said to have been vaccinated eight years before, but there was no cicatrix on his arm.

On May 10th another case was discovered on the street by an employee of the shipping commissioner. This case was like the others, a Portuguese sailor, who was taken sick in Philadelphia, May 6th, where he left his vessel, about 12 days after she had sailed from Fall River. He came by train and boat to Providence, and was discovered within two hours after his arrival. He was removed to the hospital and disinfection and vaccination practiced as usual. He was discharged from the hospital June 9th. He had been vaccinated in infancy and presented a good cicatrix. The indications are that the disease was contracted in Fall River, although it is not known that there were any cases there so early as April, though a number were discovered about the last of May.

On June 2d, Antone G——, a Portuguese sailor, arrived by train from Boston and went to 62 Wickenden street, where he was met in the yard by the agent of the house, who recognized the case as small-pox, and at once reported it to this office. He was immediately removed to the hospital at Field's Point, where the disease ran a mild course and he was discharged July 1st. There was no cicatrix to be seen, and he said that he was vaccinated unsuccessfully at New Bedford, in April, when he returned from the Cape Verde Islands. He had been at 62 Wickenden street from May 14th to 17th, and then shipped on a vessel which arrived in Boston June 1st. He was taken sick on board the vessel May 28th, so that he doubtless contracted the disease during his short stay at 62 Wickenden street from May 14 to 17th.

The total cost of caring for these five patients was \$737.14. Three of the men were sailors, and the duty of caring for them should have fallen on the United States Marine Hospital Service. Dr. B. J. Brown, the representative of that service here recognized that duty, but had no hospital facilities for meeting it. He therefore made arrangements by which the Federal government paid board for them at the City hospital at the rate of \$6 per day, which, however did not cover the expenses. The amount received from the Marine Hospital Service was \$354, which unfortunately

did not go into the Health Department appropriation, although the expenses came out of that appropriation.

CHARLES V. CHAPIN,

Superintendent of Health.

POPULATION.

Census, June 1, 1890.....	132,146
" Jan. 1, 1893.....	148,944
" June 1, 1895.....	145,272
Estimated, June 30, 1899 (including 8,000 annexed).....	168,000

ASSESSED VALUATION.

	1898.	1899.
Real estate.....	\$142,430,200 00	\$146,701,900 00
Personal estate.....	39,127,920 00	41,799,880 00
Total.....	\$181,588,120 00	\$188,501,780 00
Total amount of all tax.....	\$2,995,708 98	\$3,110,279 37

STREETS.

	1898.	1899.
Paved.....	39.2 miles.	40.32 miles.
Curbed and built, but not paved.....	148.55 "	150.95 "
Built, but not curbed.....	30.22 "	30.22 "
Received, but not built.....	5.48 "	2.07 "
Total.....	223.45 "	223.56 "

WATER AND SEWERS.

Miles of water pipes....	314.528*	318.033*
Number of service pipes in use.....	20,473	21,020
Number of meters in use.....	16,388	17,124
Average daily consumption of water....	9,148,993 gals.	9,562,058 gals.
Miles of sewers.....	168,904 miles.	174,955 miles.
Number of sewer connections.....	14,067	14,790

1. SCITUATE.—No report from the health officer.

1. SMITHFIELD.—No report from the health officer.

* Besides 5.569 for fire purposes.

1. WOONSOCKET.

2. George N. Girard, Leonard S. Allen, and Ara M. Paine, M. D., health officers.

3. There were no epidemics in this city during the year.

6. Particular inspections were made in regard to a limited number of typhoid fever cases, but probable cause for same could not be located.

7. A few sanitary inspections were made by order of the board of health.

8. No unhealthy localities in this city are known.

9. All public nuisances, unsanitary premises, etc., are reported to the city council.

10. There has been, to our knowledge, no contamination of the water, milk, or ice supplies of this city.

11. George H. Miller, B. W. Jencks, and A. J. Kelley are the ice dealers of this city.

WASHINGTON COUNTY.

1. CHARLESTOWN.—No report from the health officer.

1. EXETER.—Has no health officer.

1. HOPKINTON.

2. George A. Langworthy, health officer.

3. There were no epidemics in this town during the year.

4. Isolation was maintained.

5. All of the sick were isolated.

6. No inspections of premises were made.

7. No sanitary inspections were made during the year.

8. No unhealthy localities in this town are known.

9. Whenever complaint of public nuisances, etc., are made to me, all such are reported to the town council.

10. There has been, to my knowledge, no contamination of the water, milk, or ice supplies of this town.

11. John Smith and S. N. Avery, of Hope Valley, H. G. Kenyon, of Hopkinton City, and Charles W. Clarke, of Ashaway, are the ice dealers of this town.

1. NARRAGANSETT.—No report from the health officer.

1. NORTH KINGSTOWN.

2. Harold Metcalf, M. D., health officer.

3. Grippe was prevalent during January and February, there being a very large number of cases with a few deaths, chiefly old people. There were also about twenty or thirty cases of whooping-cough during November and December. None of these latter cases were fatal.

4. No isolation was maintained in the grippe cases; some was maintained in the whooping-cough cases.

5. One case of scarlet fever was quarantined promptly. There was no other occasion for quarantine during the year.

6. Inspections of premises were made where demanded. In one case where typhoid existed the origin could not be found.

7. Several sanitary inspections of various premises in different localities were made at my own option.

8. No unhealthy localities in this town are known.

9. All public nuisances, unsanitary premises, etc., are reported to the town council.

10. There has been, to my knowledge, no contamination of the water, milk, or ice supplies of this town.

11. Rose & Artist, of Saunderstown, and James Brayman, George Orpin, and Charles McGetrick, of Wickford, are the ice dealers of this town.

1. RICHMOND.—No report from the health officer.

1. SOUTH KINGSTOWN.

2. John P. Case, health officer.

3. There were no epidemics in this town during the year, although there were a great many cases of whooping-cough during the fall.

4. Very little isolation was maintained.

5. None of the sick were isolated.

6. Inspections of premises where sickness prevailed were made, and conditions found generally fair.

7. Sanitary inspections of nuisances in the form of cess-pools were made, and said nuisances were subsequently abated.

8. No unhealthy localities in this town are known.

9. All public nuisances, unsanitary premises, etc., are reported to the town council, except in special cases.

10. There has been, to my knowledge, no contamination of the water, milk, or ice supplies of this town.

11. George T. Priday and N. G. Armstrong are the ice dealers of this town.

1. WESTERLY.

2. E. Howard Clark, health officer.

3. There were no epidemics in this town during the year.

7. No sanitary inspections were made during the year.

8. No unhealthy localities in this town are known.

9. All public nuisances and unsanitary premises are reported to the town council, but not buildings unsafe in case of fire.

10. There has been, to my knowledge, no contamination of the water, milk, or ice supplies of this town.

11. L. D. Richmond is the ice dealer of this town.

WATER SUPPLIES.

WATER SUPPLIES.

In July, 1894, the board commenced a systematic monthly chemical and bacteriological examination of the waters of the Pawtuxet river. This river supplies the greatest number of population of the State, the population of the city of Providence being 145,472 as determined by the State census of 1895.

The advantage of periodical examinations has a value in comparison of the results from month to month, and from year to year, and thereby a determination as to the possibility of contamination may be made. An individual examination made at any one time would alone be of little value, for if the sample taken showed a purity compared with samples from other rivers it would lead to a conclusion which would be misleading, since during all the rest of the year the supply might be poor in quality. Likewise an individual sample might be taken during peculiar and unusual conditions of the source of supply, whereby a water of a very poor quality would be obtained and on analysis might be condemned as a continuous supply for drinking purposes, yet it might be the case that eleven other samples taken at periodical intervals would show an average quality which would be up to the standard.

Another advantage of the periodical examination is the possibility of determining the opportunities for an outbreak of disease before the epidemic may occur, and to study the relation of epidemics to the supply; and after years of records it would be possible to obtain information which would give practical deductions.

Owing to the limited amount of appropriations received from the legislature, this work has been limited to the one supply referred to; and it is to be hoped that in future years a sufficient

amount may be appropriated to enable the board to keep informed of the condition of the various supplies, some of which are controlled entirely by private corporations where care is sometimes diverted to the quantity rather than the quality.

The collections of the samples were not made on any particular date, but were collected usually on the Thursday coming nearest to the fifteenth of the month. This was done upon the suggestion given by the engineer's department of the State Board of Health of Massachusetts.

It was considered that a sample taken from the river on a particular date, as, for instance, the first or fifteenth of the month, would not give a fair average of the quality of the water, inasmuch as those dates might fall upon a Monday, in which case, the mills having been shut down since Saturday night, thirty-six hours would have passed, during which time the river was not being used at its maximum, and the maximum contamination would not be present. Likewise if the sample was collected on a Saturday, it would give the result of a whole week's contamination. Being taken on a Thursday would give a sample which would have a better average.

The locations from which the samples were taken from the Pawtuxet river were as follows: one from the north branch of the river at the village of Hope, at a point where the water enters the mill in the trench. The second sample was taken at Washington, on the southwest branch, at a point located above the mill and where the supply of the mill is taken in. The third sample was collected on the same day as the other two and some hours later, at the intake of the Pettaconsett pumping station and at the same point where the samples are collected by the city of Providence for their analyses.

The north branch from Hope to where the river meets the southwest branch at River Point flows a distance of about three and one-quarter miles and has a drainage area, as given by Mr. Weston, of the city engineer's department, of Providence, of about 107.79 square miles. The distance from Washington on the south-

west branch to the point where it joins the north branch is about six miles and has a drainage area of about 67.79 square miles. From River Point to the intake at the Pettaconsett pumping station, where the third sample was taken, is about five miles and has a drainage area of about 19.42 square miles. The total area of the whole water-shed above the pumping station is 195 square miles.

Along this stream, at frequent intervals below the points where the first two samples were collected, there are numerous cotton and woolen mills from which, and from the towns which are made up of the population which supplies these mills with labor, produce a certain amount of refuse matter which finds its way into the river. In addition to this, the distance of the points where the different samples are taken would go to show that the sedimentation, which occurs at the various dams where the water is held back at these various mills, is not sufficient to reduce the amount of accumulated contamination to any appreciable extent.

The reports of the examinations of the water taken at these points are given below. The results are shown in parts in 100,000 as is customary in the reports made by the Massachusetts State Board of Health.

The first arrangement is made collectively by dates, giving the results of the examination of the samples taken at the different sources on the same day, which admits of comparison of the changes in the water from one point to the other.

The next arrangement is made collectively by dates at one point only and will give the differences which occur from month to month during the different seasons. This is followed by the arrangement of average by years of each place.

The chemical analyses were made by Mr. Charles E. Swett, State assayer; and the bacteriological analyses were made by the Rhode Island Laboratory, which is under the direction of Gardner T. Swarts, M. D., and Jay Perkins, M. D.

WATER SUPPLY OF PROVIDENCE.

Chemical Examinations of the Pawtuxet River Water, taken at the Pettaconsett Pumping Station, by months, on the first and fifteenth of each month, for the year 1899.

DATE.	Total Residue.	Organic and Volatile Matter.	Mineral Matter.	Common Salt.	Albuminoid Ammonia.	Ready-formed Ammonia.	Nitrogen in Nitrates.	Nitrogen in Nitrites.	Color.	Alkalinity.
January 2.....	35.	11.	24.	5.32	.20	.05	.60	0	.....	.....
January 16.....	35.	11.	24.	4.73	.15	.02	.70	0	.....	.....
February 1.....	58.	16.	42.	4.73	.22	.04	.60	0	.....	.....
February 15.....	42.	16.	26.	4.73	.30	.02	.60	trace	.....	.....
March 1.....	35.	11.	24.	3.62	.24	.02	.60	0	.....	.....
March 15.....	29.	11.	18.	3.95	.20	.02	.60	0	.....	.....
April 1.....	27.	9.	18.	3.18	.14	.06	.60	0	.....	.....
April 15.....	31.	11.	20.	7.25	.20	.01	.60	0	.....	.....
May 1.....	34.	12.	22.	8.56	.22	.01	.60	0	.....	.....
May 15.....	39.	15.	24.	6.59	.20	.02	.50	0	.....	.....
June 1.....	41.	18.	23.	9.22	.36	.07	.60	0	.....	.....
June 15.....	51.	15.	36.	9.12	.30	.06	.40	trace	.50	18.00
July 1.....	43.	18.	25.	9.55	.28	.05	.60	0	.30	.20
July 15.....	42.	17.	25.	9.55	.21	.03	.40	0	.45	11.00
August 1.....	53.	21.	32.	10.20	.26	.03	.10	0	.40	12.00
August 15.....	56.	23.	33.	10.20	.34	.03	.50	trace	.40	10.60
September 1.....	60.	23.	37.	12.18	.34	.04	.50	trace	.35	11.00
September 15.....	55.	18.	37.	7.91	.30	.07	.30	trace	.35	10.00
October 2.....	51.	19.	32.	8.89	.29	.09	.60	0	.60	11.00
October 14.....	64.	28.	36.	10.87	.26	.06	.60	0	.45	10.00
November 1.....	63.	26.	37.	11.88	.32	.03	.60	trace	.50	11.00
November 15.....	55.	22.	33.	9.88	.29	.05	.60	0	.65	9.25
December 1.....	51.	19.	32.	9.88	.23	.05	.70	trace	.45	11.50
December 15.....	57.	22.	35.	9.55	.34	.05	.50	trace	.35	9.50
Average for year.....	46.	17.	29.	7.98	.26	.04	.54	0	.44	10.73

WATER SUPPLY OF PROVIDENCE.

Chemical Examinations of the Pawtucket River Water, taken at the Pettaconsett Pumping Station, giving averages, by years, for twenty-four years.

[Parts (in weight) in one million parts of water (in weight).]

YEAR.	Total Residue.		Mineral Matter.		Organic and Volatile Matter.		Common Salt.		Albuminoid Ammonia.		Ammonia.	
	Average.	Maximum.	Average.	Maximum.	Average.	Maximum.	Average.	Maximum.	Average.	Maximum.	Average.	Maximum.
1876.....	50	62	30	44	20	30	5.72	8.50	.24	.40	.06	.11
1877.....	43	56	24	32	19	24	5.46	7.09	.23	.32	.06	.12
1878.....	37	54	21	34	16	24	5.47	8.51	.17	.25	.04	.10
1879.....	38	59	24	43	14	24	5.73	10.83	.17	.23	.05	.10
1880.....	45	70	29	49	16	22	6.35	8.76	.22	.26	.02	.14
1881.....	41	55	26	40	15	21	4.95	8.07	.21	.28	.02	.05
1882.....	43	59	27	42	16	25	4.43	6.60	.25	.38	.03	.08
1883.....	47	64	30	47	17	24	4.60	7.95	.27	.36	.04	.14
1884.....	45	72	29	43	16	29	4.79	7.33	.19	.32	.04	.14
1885.....	46	63	30	46	16	24	4.20	6.74	.22	.30	.05	.20 ⁵
1886.....	46	59	29	44	17	25	4.14	5.95	.22	.30	.05	.14
1887.....	42	63	24	40	18	25	4.18	6.84	.21	.36	.04	.10
1888.....	41	59	24	40	17	30	3.49	5.62	.20	.30	.05	.14
1889.....	38	52	22	29	17	27	2.86	4.99	.21	.30	.04	.10
1890.....	41	55	24	35	17	25	3.63	5.30	.24	.36	.04	.12
1891.....	51	107	32	74	19	33	3.99	6.52	.23	.38	.04	.14
1892.....	48	71	29	49	19	29	5.22	8.48	.29	.46	.07	.20
1893.....	46	66	29	46	17	22	5.27	8.89	.26	.34	.05	.12
1894.....	49	75	31	52	18	24	5.72	8.90	.27	.46	.04	.18
1895.....	46	61	29	39	18	27	5.73	8.45	.30	.48	.09	.34
1896.....	44	57	27	36	18	25	5.51	7.71	.28	.46	.08	.20
1897.....	46	61	27	40	19	28+	5.33	8.60	.27	.36	.05	.16
1898.....	42	55	26	35	17	24	4.87	6.80	.24	.34	.04	.08
1899.....	46	64	29	42	17	28	7.98	12.18	.26	.36	.01	.09
Average ..	44	.....	27	.....	17	.....	4.98	.....	.24	.....	.04	.....
Maximum ..	.....	107	.....	74	.....	33	.....	12.18	.....	.48	.....	.34

Chemical and Bacteriological Examination of Water from the Pawtuxet River, at Hope Village, collectively, by Months.

(Parts in 100,000.)

DATE OF COLLECTION.	APPEARANCE.			RESIDUE ON EVAPORATION.			AMMONIA.			NITROGEN.			Bacteria per c. c.		
	Turbidity.	Sediment.	Color.	Total.	Loss on Ignition.	Fixed.	Free.	Albuminoid.			Chlorine.	As Nitrates.		As Nitrites.	Hardness.
								Total.	In Solution.	In Suspension.					
Jan. 12.....	none	none	.2	3.0	1.3	1.7	.0015	.0180	.0180	.0000	.9	.004	.0	1.1	26
Feb. 16.....	none	none	.2	2.8	1.0	1.8	.000	.010	.010	.000	.4	.00	trace	1.3	630
Mar. 16.....	slight	slight	.30	1.66	.16	1.50	.002	.014	.014	.000	.22	.05	.00	.81	1117
Apr. 13.....	very slight	very slight	.25	2.59	.79	1.80	.000	.016	.015	.001	.28	.030	.0	.88	....
May 18.....	very slight	very slight	.30	3.26	1.32	1.94	.003	.017	.012	.005	.29	.040	.0	1.17	140
June 15.....	very slight	very slight	.40	2.91	1.27	1.64	.003	.022	.018	.004	.35	.02	trace	.90	99
July 13.....	very slight	slight	.45	3.13	1.53	1.60	.005	.030	.020	.010	.18	.03	trace	.99	234
Aug. 17.....	very slight	very slight	.55	4.39	2.21	2.18	.004	.026	.026	.0	.38	.025	.0	.99	92
Sept. 14.....	very slight	very slight	.35	2.99	1.17	1.82	.005	.022	.018	.004	.30	.025	.0	.90	141
Oct. 12.....	very slight	very slight	.45	3.65	1.75	1.90	.005	.022	.018	.004	.21	.02	.0	1.01	2777
Nov. 16.....	very slight	very slight	.50	3.81	1.37	2.44	.003	.022	.017	.005	.19	.04	.0	1.9	287
Dec. 14.....	very slight	very slight	.40	3.41	1.38	2.03	.003	.020	.016	.004	.18	.04	.0	.67	483

Chemical and Bacteriological Examination of Water from the Potomac River at Washington Village, collectively, by Months.

(Parts in 100,000.)

DATE OF COLLECTION.	APPEARANCE.			RESIDUE ON EVAPORATION.			AMMONIA.			NITROGEN.				Bacteria per c. c.	
	Turbidity.	Sediment.	Color.	Total.	Loss on Ignition.	Fixed.	Free.	Albuminoid.			Chlorine.	As Nitrates.	As Nitrites.		Hardness.
								Total.	In Solution.	In Suspension.					
Jan. 12.....	none	none	.3	2.7	1.3	1.4	.0015	.0175	.0175	.....	.9	.004	.0	1.0	128
Feb. 16.....	none	none	.25	2.8	1.25	1.55	.001	.010	.010	.000	.4	.000	.0001	1.3	1085
Mar. 16.....	slight	slight	.25	2.86	.56	2.30	.004	.012	.012	.000	.23	.06	.00	.81	472
Apr. 13.....	very slight	very slight	.20	2.55	1.01	1.54	.003	.018	.018	.000	.31	.040	.0	.77	.....
May 18.....	very slight	very slight	.50	2.70	1.03	1.67	.003	.022	.011	.011	.28	.020	.0	1.05	95
June 15.....	very slight	slight	.45	2.39	1.41	.98	.004	.025	.023	.002	.44	.01	trace	1.00	190
July 13.....	very slight	slight	.45	3.10	1.61	1.49	.004	.028	.019	.009	.40	.03	trace	.99	544
Aug. 17.....	very slight	very slight	.50	3.95	2.03	1.92	.003	.025	.025	.0	.37	.015	.0	.88	802
Sept. 14.....	very slight	very slight	.35	3.16	1.44	1.72	.005	.021	.021	.0	.36	.025	.0	.90	52
Oct. 12.....	slight	slight	.65	4.10	2.16	1.94	.008	.026	.023	.003	.22	.04	.0	1.12	2858
Nov. 16.....	very slight	very slight	.70	4.69	2.10	2.59	.004	.032	.022	.010	.21	.01	.0	2.1	506
Dec. 14.....	very slight	very slight	.45	3.43	1.61	1.82	.004	.019	.019	.0	.20	.02	.0	1.01	84

Chemical and Bacteriological Examination of Water from the Pawtuxet River, at Pettaconsett Pumping Station, collectively, by Months.

(Parts in 100,000.)

DATE OF COLLECTION.	APPEARANCE.			RESIDUE ON EVAPORATION.			AMMONIA.			NITROGEN.			Bacteria per c. c.		
	Turbidity.	Sediment.	Color.	Total.	Loss on Ignition.		Free.	Albuminoid.			Chlorine.	As Nitrates.		As Nitrites.	Hardness.
					Loss	Fixed.		Total.	In Solution.	In Suspension.					
Jan. 12.....	none	none	.3	3.6	1.7	1.9	.001	.025	.025	.....	.85	.006	.0	1.2	314
Feb. 16.....	none	slight floc.	.25	3.7	1.6	2.1	.001	.015	.014	.001	.5	trace	.0	1.4	1494
Mar. 16.....	distinct	slight	.25	2.16	.76	1.40	.002	.028	.010	.018	.28	.06	.00	1.19	418
Apr. 13.....	very slight	very slight	.25	3.47	1.36	2.11	.005	.022	.018	.004	.36	.050	trace	1.10	....
May 18.....	very slight	slight	.60	4.07	1.26	2.81	.003	.026	.011	.013	.39	.040	trace	1.55	1654
June 15.....	very slight	slight	.50	5.04	1.95	3.09	.006	.034	.026	.008	.50	.03	trace	1.83	99
July 13.....	very slight	slight	.45	3.37	1.05	2.32	.004	.025	.015	.010	.44	.04	trace	1.32	1294
Aug. 17.....	very slight	very slight	.35	6.55	2.70	3.85	.003	.030	.030	.0	.59	.040	trace	1.98	1022
Sept. 14.....	very slight	very slight	.35	5.62	1.73	3.89	.006	.030	.020	.010	.58	.015	.0	1.90	4588
Oct. 12.....	slight	slight	.45	6.46	2.60	3.86	.005	.028	.024	.004	.29	.05	trace	2.02	6510
Nov. 16.....	very slight	slight	.50	5.91	2.26	3.65	.003	.030	.020	.010	.31	.06	trace	3.1	844
Dec. 14.....	very slight	slight	.40	6.02	1.99	4.03	.003	.030	.022	.008	.29	.04	trace	1.90	5301

Chemical and Bacteriological Examination of Water from the Pawtucket River, collectively, by dates, at different points, 1899.

(Parts in 100,000.)

PLACE OF COLLECTION.	APPEARANCE.		RESIDUE ON EVAPORATION.			AMMONIA.			NITROGEN.				Bacteria per c. c.
	Sediment.	Color.	Total.	Loss on Ignition.	Fixed.	Free.	Total.	In Solution.	In Suspension.	Chlorine.	As Nitrates.	As Nitrites.		Hardness.

JANUARY.

Hope	none	.2	3.0	1.3	1.7	.0015	.0180	.0180	.0000	.9	.004	.0	1.1	26
Washington	none	.3	2.7	1.3	1.4	.0015	.0175	.0175	.....	.9	.004	.0	1.0	128
Pettaconsett	none	.3	3.6	1.7	1.9	.001	.025	.025	.....	.85	.006	.0	1.2	314

FEBRUARY.

Hope	none	.2	2.8	1.0	1.8	.000	.010	.010	.000	.4	.000	trace	1.3	630
Washington	none	.25	2.8	1.25	1.55	.001	.010	.010	.000	.4	.000	.0001	1.3	1085
Pettaconsett	slight floe.	.25	3.7	1.6	2.1	.001	.015	.014	.001	.5	trace	.0	1.4	1494

MARCH.

Hope	slight	.30	1.66	.16	1.50	.002	.014	.014	.000	.22	.05	.00	.81	1117
Washington	slight	.25	2.86	.56	2.30	.001	.012	.012	.000	.23	.06	.00	.81	472
Pettaconsett	slight	.25	2.16	.76	1.40	.002	.028	.010	.018	.28	.06	.00	1.19	418

Chemical and Bacteriological Examination of Water from the Pawtuxet River, collectively, by dates, at different points, 1899.—Continued.

(Parts in 100,000.)

PLACE OF COLLECTION.	APPEARANCE.		RESIDUE ON EVAPORATION.			AMMONIA.			NITROGEN.			Bacteria per c. c.		
	Sediment.	Color.	Total.	Loss on Ignition.	Fixed.	Free.	Albuminoid.			Chlorine.	As Nitrates.		As Nitrites.	Hardness.
							Total.	In Solution.	In Suspension.					

APRIL.

Hope	very slight	.25	2.59	.79	1.80	.000	.016	.015	.001	.28	.030	.0	.88	.....
Washington	very slight	.20	2.55	1.01	1.54	.003	.018	.018	.000	.31	.040	.0	.77	.....
Pettaconsett	very slight	.25	3.47	1.36	2.11	.005	.022	.018	.004	.36	.050	trace	1.10	.....

MAY.

Hope	very slight	.30	3.26	1.32	1.94	.003	.017	.012	.005	.29	.040	.0	1.17	140
Washington	very slight	.50	2.70	1.03	1.67	.003	.022	.011	.011	.28	.020	.0	1.05	95
Pettaconsett	slight	.60	4.07	1.26	2.81	.003	.026	.011	.013	.39	.040	trace	1.55	1654

JUNE.

Hope	very slight	.40	2.91	1.27	1.64	.003	.022	.018	.004	.35	.02	trace	.90	99
Washington	slight	.45	2.39	1.41	.98	.004	.025	.023	.002	.44	.01	trace	1.00	190
Pettaconsett	slight	.50	5.04	1.95	3.09	.006	.034	.026	.008	.50	.03	trace	1.83	99

Chemical and Bacteriological Examination of Water from the Pawtucket River, collectively, by dates, at different points, 1899.—Continued.

(Parts in 100,000.)

PLACE OF COLLECTION.	APPEARANCE.		RESIDUE ON EVAPORATION.			AMMONIA.			NITROGEN.				Bacteria per c. c.	
	Sediment.	Color.	Total.	Loss on Ignition.	Fixed.	Free.	Albuminoid.		Chlorine.	As Nitrates.	As Nitrites.	Hardness.		
							Total.	In Solution.						In Suspension.
JULY.														
Hope	slight	.45	3.13	1.53	1.60	.005	.030	.020	.010	.18	.03	trace	.99	234
Washington	slight	.45	3.10	1.61	1.49	.004	.028	.019	.009	.40	.03	trace	.77	544
Pettaconsett	slight	.45	3.37	1.05	2.32	.004	.025	.015	.010	.44	.04	trace	1.32	1294
AUGUST.														
Hope	very slight	.55	4.39	2.21	2.18	.004	.026	.026	.0	.38	.025	.0	.99	92
Washington	very slight	.50	3.95	2.03	1.92	.003	.025	.025	.0	.37	.015	.0	.88	802
Pettaconsett	very slight	.35	6.55	2.70	3.85	.003	.030	.030	.0	.59	.040	trace	1.98	1022
SEPTEMBER.														
Hope	very slight	.35	2.99	1.17	1.82	.005	.022	.018	.001	.30	.025	.0	.90	141
Washington	very slight	.35	3.16	1.41	1.72	.005	.024	.024	.0	.36	.025	.0	.90	72
Pettaconsett	very slight	.35	5.62	1.73	3.89	.006	.020	.030	.010	.58	.015	.0	1.50	4588

Chemical and Bacteriological Examination of Water from the Pawtuxet River, collectively, by dates, at different points, 1899.—Concluded.

(Parts in 100,000.)

PLACE OF COLLECTION.	APPEARANCE.		RESIDUE ON EVAPORATION.			AMMONIA.			Chlorine.	NITROGEN.			Bacteria per c. c.	
	Sediment.	Color.	Total.	Loss on Ignition.	Fixed.	Free.	Albuminoid.			As Nitrates.	As Nitrites.	Hardness.		
							Total.	In Solution.						In Suspension.
OCTOBER.														
Hope	very slight	.45	3.65	1.75	1.90	.005	.022	.018	.004	.21	.02	.0	1.01	2777
Washington	slight	.65	4.10	2.16	1.94	.008	.026	.023	.003	.22	.04	.0	1.12	2858
Pettaconsett	slight	.45	6.46	2.60	3.86	.005	.028	.024	.004	.29	.05	trace	2.02	6510
NOVEMBER.														
Hope	very slight	.50	3.81	1.37	2.44	.003	.022	.017	.005	.19	.04	.0	1.9	287
Washington	very slight	.70	4.69	2.10	2.59	.004	.032	.022	.010	.21	.04	.0	2.1	506
Pettaconsett	slight	.50	5.91	2.26	3.65	.003	.030	.020	.010	.31	.06	trace	3.1	844
DECEMBER.														
Hope	very slight	.40	3.41	1.38	2.03	.003	.020	.016	.004	.18	.04	.0	.67	483
Washington	very slight	.45	3.43	1.61	1.82	.004	.019	.019	.0	.20	.02	.0	1.01	84
Pettaconsett	slight	.40	6.02	1.99	4.03	.003	.030	.022	.008	.29	.04	trace	1.90	5301

WATER SUPPLY OF PROVIDENCE.

Chemical and Bacteriological Examination of Water from the Pawtucket River, by place, giving averages by years.

(Parts per 100,000.)

YEAR.	RESIDUE ON EVAPORATION.			AMMONIA.			NITROGEN			No. of Bacteria Colonies.		
	Total.	Loss on Ignition.	Fixed.	Free.	Albuminoid.		Chlorine.	As Nitrates.	As Nitrites.		Hardness.	
					Total.	Dissolved.						Suspended.
1894.*	5.2	1.2	3.9	.0014	.0012	.0118	.0005	.8	.008	.....	1.19	568
1895.	4.7	1.9	2.7	.0019	.0178	.015	.0008	.8	.....	.....	.8	698
1896.	4.4	2.7	2.0	.0021	.0177	.016	.0008	.5	.006	.....	.31	3830
1897.	3.5	2.2	1.4	.0015	.015	.0145	.0002	.4	.006	.0	.3	329
1898.	3.5	1.6	1.9	.0012	.014	.0115	.0007	.4	.000	.0	.51	616
1899.	3.13	1.27	1.86	.0029	.0030	.0017	.003	.32	.026	.0	1.05	502

HOPE.

WASHINGTON.												
1894.*	4.6	1.5	3.2	.0007	.0131	.0129	.0003	.78	.02	.....	1.24	3970
1895.	4.94	1.9	2.14	.0012	.0164	.0145	.0007	.58	.007	.....	.89	560
1896.	4.0	2.0	2.0	.0111	.014	.0136	.0007	.5	.012	.....	.325	7678
1897.	4.1	2.6	1.6	.0015	.014	.016	.0009	.43	.002	.....	.29	1224
1898.	3.8	1.9	2.0	.0014	.013	.011	.001	.4	.000	.000	.52	615
1899.	3.20	1.46	1.74	.0037	.0215	.0213	.003	.38	.025	.0	1.08	590

PETTACONSETT.

1894.*	5.7	1.6	4.2	.0015	.0199	.0192	.0006	.67	.02	.001	1.55	9021
1895.	5.3	1.9	3.0	.0023	.0081	.0174	.0033	.66	.006	.....	.57	8900
1896.	5.6	2.7	3.1	.0043	.0197	.0166	.0029	.57	.013	.....	.53	11479
1897.	5.3	2.9	2.4	.0042	.018	.0165	.0018	.52	.023	.....	.6	6564
1898.	4.6	2.0	2.5	.0057	.0168	.0143	.0013	.50	.011	.001	.76	1547
1899.	4.75	1.74	2.92	.004	.027	.020	.007	.45	.036	.0	1.70	1962

* Average of the last six months of the year only.

METEOROLOGY.

It has been remarked in previous reports of the Board that the influence of the meteorological conditions of the atmosphere, as well as the floating matter suspended therein, are recognized and acknowledged by all pathologists as causes of disease; and the following tables are therefore introduced, as heretofore, for the purpose of comparing the large prevalence of certain diseases, at different monthly periods of the year, with the temperature, the atmospheric pressure, the relative humidity, prevailing direction and force of the wind, and other conditions of the atmosphere, and also the amount of cloud and rain-fall during each month of the year. All of the said diseases and monthly prevalence of the same may be found in the report upon the registration of deaths arranged by MONTHS, in Table VII of the Registration Report.

The first table is compiled from the monthly reports of the city engineer of Providence, and shows the mean, maximum, and minimum temperature of the different months, and the extremes and average daily range of the same; the rain-fall, and prevailing direction of the wind.

The second table will give a more comprehensive monthly summary of observations during 1899, including a large number of atmospheric conditions for each month, and also yearly summaries for each of the nineteen preceding years.

It is condensed from the annual summary of monthly observations at Hope reservoir and the city hall, in Providence.

TABLE I.

Temperature, Range of Temperature, Rain-fall, and Prevailing Direction of the Wind for each Month during the year 1899.

MONTHS, 1899.	TEMPERATURE.							Total Amount of Rain or Melted Snow in inches.	PREVAILING DIRECTION OF THE WIND.
	Monthly Mean.	Maximum.	Minimum.	Monthly Range.	Greatest Daily Range.	Least Daily Range.	Average Daily Range.		
January.....	30.2	53.5	-2.0	55.5	32.0	6.5	17.0	5.18	N.W.
February.....	26.3	52.0	-2.5	54.3	25.5	4.0	12.3	6.00	N.W., Variable.
March.....	34.9	59.5	17.5	42.0	21.5	3.5	13.2	8.98	N.W.
April.....	48.5	79.0	28.5	50.5	31.0	7.0	19.1	2.12	N., S., N.W.
May.....	58.9	88.5	41.0	47.5	28.5	7.5	20.0	2.60	S.
June.....	72.2	94.5	55.0	39.5	35.0	7.5	20.5	3.62	Variable.
July.....	73.4	94.5	54.5	40.0	29.0	6.5	18.9	4.69	S.W.
August.....	70.6	91.0	54.5	36.5	30.0	4.0	18.7	1.56	Variable.
September.....	62.9	82.5	43.5	39.0	27.0	7.0	16.9	9.16	N., S., S.W.
October.....	51.5	75.0	32.5	42.5	29.0	4.5	14.1	1.68	Variable.
November.....	42.3	65.0	25.0	40.0	22.5	6.5	13.4	2.37	N.W.
December.....	36.0	61.0	7.0	51.0	28.0	4.5	13.3	1.88	N.W.
For the year.....	50.9	74.7	22.8	44.3	.....	.....	.....	49.24	N.W.

TABLE II.—Summary of Meteorological Observations at Hope Reservoir and City Hall, for the year 1899.

MONTHS.	BAROMETER.				THERMOMETERS.				RELATIVE HUMIDITY.	WIND.								WEATHER.				RAIN AND SNOW.							
	Reduced to Sea Level and to 32°.				Mean.	Maximum.	Minimum.	Range.		Prevailing Direction. No. of days it was								Atmosphere. No. of days it was				Amount of Rain or Melted Snow in inches.	Depth of Snow in inches.						
	Means.	Maximum.	Minimum.	Range.						North.	North-east.	South-east.	South.	South-west.	West.	North-west.	Variable.	Mean Velocity.	Clear.	Fair.	Variable.			Rain or Snow.	All others.	Mean Amount of Cloud.			
January.....	30.06	30.83	29.12	1.71	30.2	53.5	-2.	55.5	64	4	1	0	2	1	3	6	6	10	4	9	10	0	11	0	4.3	5.18†	4.50		
February.....	29.93	30.49	28.90	1.59	26.3	52.	-2.5	54.5	70	5	0	0	4	2	3	7	9	8	7	9	8	3	0	17	0	5.2	6.00†	35.25	
March.....	29.90	30.49	28.88	1.66	34.9	59.5	17.5	42.	74	4	2	0	3	1	1	11	8	10	2	10	2	9	0	19	1	6.1	8.88†	7.50	
April.....	30.02	30.33	29.49	.84	48.5	79.	28.5	50.5	55	7	0	0	0	7	2	1	7	6	8	8	7	13	0	10	0	3.5	2.12†	*	
May.....	30.00	30.28	29.66	.62	58.9	88.5	41.	47.5	64	4	3	0	1	8	5	1	3	6	8	8	3	15	0	13	0	4.6	2.60	.....
June.....	29.90	30.28	29.72	.56	72.2	94.5	55.	39.5	61	1	0	0	0	8	4	2	6	9	7	7	1	18	1	10	0	4.4	3.62	.....
July.....	29.94	30.22	29.64	.58	73.4	94.5	54.5	40.0	67	0	1	2	0	4	9	2	9	4	7	4	14	0	13	0	4.4	4.69	.....	
August.....	29.98	30.30	29.73	.57	70.6	91.	54.5	36.5	74	4	4	1	1	7	1	2	3	8	5	2	17	4	6	2	5.5	1.56	.....	
September.....	30.02	30.44	29.61	.83	62.9	82.5	43.5	39.	74	5	0	2	3	5	5	2	4	7	9	8	2	11	0	4.1	9.16	.....		
October.....	30.17	30.47	29.62	.85	54.5	75.	32.5	42.5	76	6	2	0	0	2	4	2	5	10	6	6	6	9	2	9	5	5.4	1.68	.....
November.....	29.97	30.50	29.43	1.07	42.3	65.	25.	40.	68	6	1	0	0	0	3	4	12	4	7	8	12	1	9	0	4.2	2.37†	*		
December.....	30.01	30.68	29.10	1.58	36.	61.	7.	54.	70	3	0	1	2	3	3	4	9	6	7	9	11	1	10	0	3.5	1.88†	*		
Means for year.....	30.00	.....	.....	1.04	50.9	.....	.....	45.1	68	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Totals for year.....	49	14	6	12	50	42	30	86	76	69	139	11	138	8	49.24	47.25
Extremes.....	30.33	28.83	2.00	94.5	-2.5	97.

* Too small to be measured. † Snow and rain.

TABLE II.—Continued.—*Summary of Meteorological Observations at Hope Reservoir and City Hall.*

BAROMETER.				THERMOMETERS.				RELATIVE HUMIDITY.		WIND.						WEATHER.				RAIN AND SNOW.											
Reduced to Sea Level and to 32°.				Mean.				Mean.		Prevailing Direction. No. of days it was						Atmosphere. No. of days it was				Amount of Rain (Cloud)											
Means.	Maximum.	Minimum.	Range.	Maximum.	Minimum.	Range.	Mean.	Relative Humidity.	North.	Northeast.	East.	Southeast.	South.	Southwest.	West.	Northwest.	Variable.	Mean Velocity.	Clear.	Fair.	Variable.	Rain or Snow.	All others.	Mean Amount of Cloud.	Amount of Rain in inches.	Depth of Snow in inches.					
YEARLY SUMMARY FOR 1898.																															
Means for year.	29.99	.....	1.11	51.8	.....	46.1	72	.....	40	31	6	17	41	25	76	75	.....	8	.....	47	136	12	161	6	.....	5.1	.....	.....	
Totals for year.	.....	.....	.....	.....	.....	.....	.....	.....	40	31	6	17	41	25	76	75	.....	8	.....	47	136	12	161	6	.....	63.50	65.50	.....		
Extremes.	30.75	28.67	2.08	101.5	0.	101.5	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
YEARLY SUMMARY FOR 1897.																															
Means for year.	29.99	.....	1.12	50.8	.....	46.5	70	.....	52	33	7	52	39	27	89	69	.....	8	.....	.....	.....	.....	.....	.....	4.8	.....	.....	.....	.....
Totals for year.	.....	.....	.....	.....	.....	.....	.....	.....	52	33	7	52	39	27	89	69	.....	8	.....	.....	.....	.....	.....	.....	.....	47.63	52.50	.....	.....
Extremes.	30.81	28.98	1.86	95.	5.5	89.5	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
YEARLY SUMMARY FOR 1896.																															
Means for year.	29.99	.....	1.09	50.4	.....	49.	69	.....	59	32	11	18	34	36	31	73	82	.....	9	.....	.....	.....	.....	.....	4.8	.....	.....	.....	.....	.....
Totals for year.	.....	.....	.....	.....	.....	.....	.....	.....	59	32	11	18	34	36	31	73	82	.....	9	.....	.....	.....	.....	.....	.....	.....	45.91	61.50	.....	.....
Extremes.	30.85	28.87	1.98	98.	9.	107.

The force of the wind and amount of cloud are closely approximated in figures from 0 to 10.

YEARLY SUMMARY FOR 1892.

Means for year...	29.98	1.06	50.4	43.3	71	8	47	147	9	156	7	4.9											
Totals for year...	30.65	28.99	1.66	96.	2.	94.	50	19	8	10	41	38	52	75	73	47	147	9	156	7	37.39	43.00	
Extremes.....																							

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YEARLY SUMMARY FOR 1891.

Means for year...	30.02	1.10	51.7	46.8	74	8	37	158	7	158	5	5.1											
Totals for year...	30.78	28.81	1.97	98.	6.	92.	46	24	8	11	63	40	26	73	74	37	158	7	158	5	53.10	31.35	
Extremes.....																							

YEARLY SUMMARY FOR 1890.

Means for year...	30.00	1.00	50.4	45.4	74	9	37	151	7	168	2	5.4											
Totals for year...	30.88	29.23	1.65	96.	5.5	90.5	52	15	6	13	47	32	43	79	78	37	151	7	168	2	50.60	42.00	
Extremes.....																							

YEARLY SUMMARY FOR 1889.

Means for year...	29.49	1.15	51.4	42.3	76	8	40	142	9	166	8	5.1											
Totals for year...	30.50	28.49	1.97	92.5	0.5	92.	56	31	9	7	61	39	37	71	54	40	142	9	166	8	55.91	17.75	
Extremes.....																							

The force of the wind and amount of cloud are closely approximated in figures from 0 to 10.

The rainfall observations previous to 1886 have been corrected for an inaccuracy caused by the imperfect construction of the gauges with which they were made.

YEARLY SUMMARY FOR 1885.

Means for year..	29.98	1.09	48.7	46.6	71	46	21	8	14	56	43	42	74	61	9	157	17	142	4	4.6	
Totals for year..	30.82	28.99	1.83	93.5	-1.	94.5														39.70	27.35
Extremes.....																					

YEARLY SUMMARY FOR 1884.

Means for year..	30.01	1.05	49.5	49.2	76	57	22	8	14	42	60	27	63	73	9	127	26	166	11	5.3	
Totals for year..	30.79	28.93	1.86	94.	-10.	104.														48.76	44.50
Extremes.....																					

YEARLY SUMMARY FOR 1883.

Means for year..	30.05	1.08	48.2	45.5	72	43	31	7	11	41	51	35	70	73	45	136	17	156	11	5.1	
Totals for year..	30.77	28.88	1.89	93.	-0.5	102.5														39.51	73.00
Extremes.....																					

YEARLY SUMMARY FOR 1882.

Means for year..	30.03	1.03	49.2	46.	72	51	26	2	16	46	39	40	82	60	44	118	31	136	6	5.3	
Totals for year..	30.79	29.22	1.57	95.	-11.	106.														44.96	74.00
Extremes.....																					

The force of the wind and amount of cloud are closely approximated in figures from 0 to 10.

The rainfall observations previous to 1886 have been corrected for an inaccuracy caused by the imperfect construction of the gauges with which they were made.

Condensed Table of Meteorological Observations in Rhode Island, 1881-1899.

YEARS.	BAROMETER. Reduced to Sea Level and to 32° F.				THERMOMETERS.				PRECIPITATION.		PREVAILING DIRECTION OF WIND.	
	Mean Barometer.	Highest Barometer.	Lowest Barometer.	Mean Range of Barometric Pressure.	Mean.	Maximum.	Minimum.	Mean Range.	Mean Humidity.	Rain and Melted Snow in Inches.		Number of Days Snow or Rain fell.
1899.....	30.00	30.33	28.83	1.01	50.9	94.5	-2.5	45.1	68	49.24	138	N.W.
1898.....	29.99	30.75	28.67	1.11	51.8	101.5	0.0	46.1	72	63.50	164	N.W.
1897.....	29.99	30.84	28.98	1.12	50.8	95.0	5.5	46.5	70	47.63	160	N.W.
1896.....	29.99	30.85	28.87	1.17	50.4	98.0	-9.0	49.0	69	45.91	152	N.W.
1895.....	29.98	30.75	28.61	1.17	51.0	98.0	-5.0	45.5	70	50.81	155	N.W.
1894.....	30.01	30.78	28.78	1.06	51.4	97.0	-4.0	45.4	73	42.27	153	Variable.
1893.....	29.98	30.81	28.84	1.13	48.6	95.5	0.0	44.8	73	51.28	157	N.W.
1892.....	29.98	30.65	28.99	1.06	50.4	96.0	2.0	43.3	71	37.39	156	N.W.
1891.....	30.02	30.78	28.81	1.19	51.7	98.0	6.0	46.8	74	53.49	158	N.W.
1890.....	30.00	30.85	29.23	1.00	50.4	96.0	5.5	45.4	74	50.60	168	N.W.
1889.....	29.99	30.90	28.93	1.15	51.4	92.5	0.5	42.3	76	55.91	166	N.W.
1888.....	30.00	30.82	28.75	1.21	48.2	96.5	-5.0	46.5	72	63.44	167	N.W.
1887.....	30.01	30.97	28.94	1.26	49.4	94.0	-1.5	47.0	73	50.98	154	N.W.
1886.....	30.01	30.80	28.69	1.13	48.8	95.5	-5.5	46.8	74	52.02	160	Variable.
1885.....	29.98	30.82	28.99	1.09	48.7	93.5	-1.0	46.6	71	39.70	142	N.W.
1884.....	30.01	30.79	28.93	1.05	49.5	91.0	-10.0	49.2	76	48.76	166	Variable.
1883.....	30.05	30.77	28.88	1.08	48.2	93.0	-9.5	45.5	72	39.51	156	Variable.
1882.....	30.03	30.77	29.22	1.03	49.2	95.0	-11.0	46.0	72	41.96	136	N.W.
1881.....	30.00	30.80	28.97	1.08	49.6	96.0	-4.0	44.5	73	41.79	130	N.W.

Meteorological Observations for the Whole State for 1899.

[Compiled from the Bulletin of the New England Weather Service.]

MONTHS.	TEMPERATURE (IN DEGREES FAHRENHEIT).							PRECIPITATION (IN INCHES).					SKY.			WIND. Prevailing direction.
	Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snow-fall (unmelted).	Number rainy days.	Number clear days.	Number partly cloudy days.	Number cloudy days.	
January.....	30.4	-0.8	53	24	5	11	21	5.18	+0.93	1.68	3	11	11	10	10	N.W.
February.....	26.4	-5.3	47	27	0	11	19	4.96	+0.52	1.34	22	10	9	10	9	N.W.
March.....	35.8	+1.2	54	5	20	21	22	8.54	+4.52	4.29	7	19	10	9	12	N.W.
April.....	43.9	-0.1	69	25	28	3	25	2.13	-1.31	1.28	2	8	18	8	4	N.W.
May.....	52.8	+0.3	74	31	38	4	19	2.09	-1.81	0.71	0	10	14	9	8	S.W.
June.....	64.8	+2.6	83	6	53	8	26	2.48	+0.50	1.42	0	8	16	12	2	S.W.
July.....	68.4	+0.1	80	*15	52	1	19	4.49	+1.41	1.72	0	13	18	7	6	S.W.
August.....	67.6	0.0	80	5	49	16	22	1.79	-1.62	1.05	0	4	13	10	8	N.E.
September.....	63.4	-0.3	79	6	48	15	16	4.92	+2.00	1.39	0	10	14	12	4	S.W.
October.....	54.6	+0.8	68	19	37	22	16	2.33	-2.20	1.34	0	7	10	6	15	W.

BLOCK ISLAND.

November.....	41.6	-0.6	65	1	28	13	22	1.04	-3.15	0.46	0	9	8	9	N.W.
December.....	37.8	+1.1	60	12	11	30	26	1.46	-3.42	0.41	1	10	12	9	W.
Means.....	49.2														
Totals.....								41.41			35	143	158	110	97
Extremes.....			83	0			26			4.29					N.W.

BRISTOL.

January.....	29.6		48	5	2	2	28	5.54		1.65	4	11	15	7	9	N.W.
February.....	25.7		47	21	0	11	19	5.08		1.81	28	14	14	4	10	
March.....	35.2		50	5	18	17	20	7.06			5	21	10	4	17	N.W.
April.....	46.0		70	26	28	*3	25	2.00	-2.76	0.85		7	23	4	3	
May.....	55.8		74	12	39	4	25	2.38	-1.21	0.97	0	10	18	6	7	
June.....	67.4		90	6	54	11	25	3.00	+1.03	1.61	0	7	19	8	3	
July.....	70.0		81	17	53	1	22	3.21	+1.22	1.53	0	7				
August.....	69.8		81	*20	51	15	21	1.74	-0.90	1.15	0	5				
September.....																
October.....	55.2							1.58	-2.61	0.95	0	4				
November.....	43.6		63	1	27	13	23	1.43		0.90	0	5				N.W.
December.....	30.6		59	12	9	31	21	1.29		0.46	Trace	7				
Means.....	48.8	*														
Totals.....								34.82			37	98	99	33	49	
Extremes.....			90	0			28			1.84						N.W.

* On other dates also.

Meteorological Observations for the Whole State for 1899.

(CONTINUED.)

MONTHS.	TEMPERATURE (IN DEGREES FAHRENHEIT).							PRECIPITATION (IN INCHES).					SKY.			WIND. Prevailing direction.
	Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snow fall (unmelted).	Number rainy days.	Number clear days.	Number partly cloudy days.	Number cloudy days.	
January.....	28.2	+1.1	54	*24	-6	2	33	5.00	+0.11	1.71	2	11	17	6	8	N.W.
February.....	23.5	-3.5	53	21	-10	10	27	5.08	+0.04	0.96	21	15	11	3	14	W.
March.....	33.6	-0.6	54	5	15	*17	25	9.67	+4.75	2.75	7	14	9	6	16	N.E.
April.....	44.9	+0.2	74	29	22	3	40	2.63	-2.20	1.34	.....	6	19	5	6	S.W.
May.....	55.2	+0.7	82	31	35	*4	32	1.88	-2.50	0.78	0	7	13	8	10	S.W.
June.....	67.4	+2.4	95	6	40	30	38	1.87	-0.45	0.70	0	0	8	16	6	S.W.
July.....	69.5	+0.7	89	27	49	1	30	2.71	+0.16	0.85	0	8	12	8	11	S.W.
August.....	68.4	-0.2	86	*5	46	9	32	6.50	+3.16	4.89	0	6	8	15	8	N.E.
September.....	60.4	-2.1	82	6	30	15	32	7.20	+4.52	4.00	0	9	15	5	10	N.W.
October.....	53.0	+2.8	77	15	25	*2	32	2.43	-3.11	1.03	0	8	8	12	11	N.E.

* KINGSTON.

November.....	40.8	67	1	21	14	29	2.70	-1.84	1.17	.....	7	14	6	10	W.
December.....	33.6	61	11	0	31	30	1.80	-2.11	0.54	trace	8	13	12	6	W.
Means.....	48.2
Totals.....	49.47	33	99	147	102	116
Extremes.....	95	10	40	4.89	S.W.

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NARRAGANSETT PIER.

January.....	29.4	50	24	-5	2	35	6.01	1.70	2	10	20	2	9	N.W.
February.....	25.4	50	6	-8	10	29	3.25	0.85	22	14	15	1	12	N.W.
March.....	34.8	53	5	16	17	22	8.12	.....	2.50	6	18	15	1	15	N.W.
April.....	44.1	69	26	25	8	27	2.57	.....	1.45	0	6	26	2	2	N.W.
May.....	54.5	77	31	34	6	29	2.57	.....	1.05	0	10	20	3	8	S.W.
June.....	66.9	92	6	49	12	29	1.50	.....	0.57	0	6	22	5	3	S.
July.....	70.4	85	17	49	1	26	3.79	.....	1.45	0	9	23	2	6	S.W.
August.....	68.0	83	5	48	*9	28	4.02	.....	3.39	0	4	19	7	5	S.W.
September.....	61.1	80	1	40	422	26	6.30	.....	3.15	0	10	21	4	5	S.
October.....	52.8	72	19	27	22	21	2.23	.....	1.03	0	5	15	2	14	W.
November.....	41.9	66	1	21	26	21	1.29	.....	0.72	0	6	19	2	9	W.
December.....	34.8	58	12	4	31	31	1.40	.....	0.40	trace	6	19	5	7	N.W.
Means.....	48.7	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Totals.....	.....	.....	.....	.....	.....	.....	43.09	.....	.....	30	104	234	36	95	.....
Extremes.....	.....	92	.....	8	.....	35	.....	.....	3.39	.....	.....	.....	.....	.....	N.W.

* On other dates also.

Meteorological Observations for the Whole State for 1899.

(CONTINUED.)

MONTHS.	TEMPERATURE (IN DEGREES FAHRENHEIT).							PRECIPITATION (IN INCHES).						SKY.			WIND. Prevailing direction.
	Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snow fall (unmelted).	Number rainy days.	Number clear days.	Number partly cloudy days.	Number cloudy days.		
January.....	30.8	+3.3	54	*5	-2	2	32	5.18	+1.15	1.94	4	10	.....	.....	.....	N.W.
February.....	26.4	-1.1	52	21	-2	11	26	6.00	+2.33	.....	35	35	.....	.....	.....	N.W.
March.....	35.7	+1.5	60	12	18	17	22	8.38	+4.33	1.60	8	14	.....	.....	.....	.....
April.....	50.0	+4.5	79	25	28	3	30	2.12	-1.58	1.13	.....	7	.....	.....	.....	.....
May.....	60.5	+2.4	88	31	41	4	29	2.00	-1.13	1.35	0	6	.....	.....	.....	S.W.
June.....	72.2	+3.0	94	*6	55	22	36	3.62	+0.39	1.70	0	6	.....	.....	.....	S.
July.....	74.8	+3.1	94	27	54	1	30	4.69	+1.47	2.15	0	9	.....	.....	.....	.....
August.....	72.1	+2.5	91	5	51	9	30	1.56	-2.64	1.18	0	5	.....	.....	.....	.....
September.....	63.2	+0.8	82	1	44	*15	26	9.16	+6.07	6.50	0	9	.....	.....	.....	.....
October.....	54.6	+3.4	75	15	32	22	29	1.08	-2.10	0.66	0	7	.....	.....	.....	.....

PROVIDENCE.

November.....	42.4	+2.2	65	1	25	13	22	2.37	-1.76	0.94	.....	6	.....	.....	.....
December.....	36.2	+0.4	61	12	7	31	28	1.88	-2.01	0.54	.....	trace	5	.....	.....
Means.....	51.5	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Totals.....	.....	.....	94	.....	.....	.....	.....	48.64	.....	.....	.....	47	119	.....	.....
Extremes.....	.....	.....	.....	.....	-2	.....	36	.....	.....	2.15	.....	.....	.....	.....	N.W.

AVERAGES, Etc., FOR 1899.

Block Island.....	49.2	.....	88	.....	0	.....	26	41.41	.....	4.29	.....	35	143	158	110	97	N.W.
Bristol.....	48.8	.....	90	.....	0	.....	28	34.82	.....	1.84	.....	37	98	99	33	49	N.W.
Kingston.....	48.2	.....	95	.....	-10	.....	40	49.47	.....	4.89	.....	33	99	147	102	116	S.W.
Narragansett Pier.....	48.7	.....	92	.....	-8	.....	35	43.09	.....	3.39	.....	30	104	234	36	95	N.W.
Providence.....	51.5	.....	91	.....	-2	.....	36	48.64	.....	2.15	.....	47	119	.....	.....	.....	N.W.

* On other dates also.

BIRTHS, DEATHS, AND MARRIAGES, 1899.

The value of reliable reports in their various bearings, relating to the records of births, marriages, and deaths, and the items of fact connected therewith, showing the vital movements of the population from year to year, has been so frequently presented in the previous reports of this Board as to need no repetition at this time. It is gratifying, however, to be able to state that, with no exception, persons eminent in social and political science everywhere recognize the indispensable information such reports furnish, and that in every civilized country they occupy places of importance in the government reports scarcely second to any other department.

The forty-sixth report on the registry of vital movements in Rhode Island was completed and issued by the end of the year, and will be found appended to this report.

The work of collecting the data for the forty-seventh report, the enumerating, classifying, arranging, and collecting in tables for the purpose of presenting the various facts in such detail as to facilitate examination and study has been in progress during the time of making up this report, and affords some facts which may be presented at this time.

Below will be found some of the general results of the registry of births, marriages, and deaths during 1899.

SEX.		BIRTHS.	PARENT NATIVITY.	
Males	5,591		Native*.....	4,321
Females	5,240		Foreign.....	6,510
Whole number of births.....		10,831		

* Including all whose fathers were born in the United States, whether the fathers were of foreign parentage or native.

MARRIAGES.

Native born Groom and Bride.....	1,658
Foreign born Groom and Bride.....	972
Native Groom and Foreign Bride.....	411
Foreign Groom and Native Bride.....	392
Whole number of marriages.....	3,433
Native Grooms.....	2,069
Foreign Grooms.....	1,364

DEATHS.

SEX.		NATIVITY.	
Males.....	3,725	Native.....	5,247
Females.....	3,733	Foreign.....	2,211
Whole number of deaths.....	7,458		

There was one birth to every 39.0 of the population, or.....25.6 births in every 1,000

One person married in every 61.5 of the population, or.....16.2 persons married in every 1,000

And one death in every 56.7 of the population, or.....17.6 deaths in every 1,000

Population for 1899.....422,620

The following summary will show the rates, per 1,000 of the population, of births, marriages, and deaths, for twelve years.

	1888	1889	1890	1891	1892	1893	1894	1895	1896	1897	1898	1899
Birth-rates.....	24.2	24.1	24.7	26.5	25.2	26.5	26.6	25.7	27.3	26.8	25.9	25.6
Death-rates.....	20.4	19.0	20.1	18.6	20.1	19.6	19.5	19.6	19.1	17.6	16.7	17.6
Excess of Birth-rates over Death-rates.....	3.8	5.1	4.6	7.9	5.1	6.9	7.1	6.1	8.2	9.2	9.2	8.0
Marriage-rates — persons married.....	18.7	18.4	18.5	18.7	19.1	18.7	17.4	18.2	17.0	15.6	15.8	16.2
Ratio of number of mar- riages.....	9.3	9.2	9.3	9.3	9.6	9.4	8.7	9.1	8.5	7.8	7.9	8.1

The following table will present the number, parentage, and proportion to total mortality of deaths from several of the most prominent causes of death, in their order of precedence.

	Whole No. of deaths.	Percentage of deaths from all Causes.	Parentage.		Excess of Foreign over Native.
			Native.	Foreign.	
Consumption	972	13.03	310	656	340
Pneumonia.....	686	9.20	317	369	52
Heart Diseases.....	648	8.69	334	314	-20
Kidney Diseases.....	477	6.39	215	262	47
Cholera Infantum.....	473	6.34	127	346	219
Apoplexy and Paralysis....	457	6.13	230	227	-3
Cancers	202	3.91	135	157	22
Accidents.....	276	3.70	109	167	58
Brain Diseases	267	5.58	117	150	33
Bronchitis.....	241	3.23	73	168	95
Old Age.....	228	3.07	148	80	-68
Influenza.....	219	2.94	104	115	11
Enteritis	212	2.84	76	136	60
Typhoid Fever.....	90	1.21	41	49	8
All causes.....	7,458	100.00	3,725	3,733	8

LONGEVITY OF DECEDENTS.

	1899.	1898.	1897.	1896.	1895.	1894.
Average age in years of Male decedents.....	34.04	34.34	33.71	30.86	31.70	32.47
Female "	37.30	36.34	37.06	34.47	36.49	34.40
Total "	35.67	35.31	35.37	32.61	34.08	33.44

There has been a gradual increase during the last thirty-nine years in the average length of life of decedents, taking periods of five years each, running from about twenty-nine and thirty-two one-hundredths years, at the beginning, to thirty-four and sixty one-hundredths years at the ending, in 1899.

PERCENTAGE OF MORTALITY BY CLASSES.

	1899.	1898.	1897.	1896.	1895.	1894.
Zymotic diseases	32.41	29.53	32.21	32.31	31.02	22.02
Constitutional diseases.....	4.57	4.56	4.27	3.80	3.98	16.05
Local diseases.....	39.73	41.95	39.63	38.25	37.31	46.18
Developmental diseases	18.24	18.18	18.78	20.13	19.18	10.92
Violence, etc.....	5.05	5.78	5.08	5.18	5.48	4.82

The large increase of percentage in the class of local diseases previous to 1894 was due to the increase in number of deaths from pneumonia, the greatest number of deaths being due to this cause in 1893, there being 121 more than in 1892 and 208 more than in 1891. There were 111 less deaths from pneumonia in 1894 than in 1893, 20 more deaths from same cause in 1895 than in 1894, in 1896 16 less deaths than in 1895, 34 less deaths in 1897 than in 1896, 93 less deaths in 1898 than 1897, and 142 more deaths in 1899 than in 1898.

RATIOS OF MORTALITY.

As compared with the year 1898 there was little change in 1899 in the proportional mortality of several of the most important diseases occurring in larger or small numbers every year.

APOPLEXY AND PARALYSIS.—The deaths from these diseases were nearly the same in each of the years 1891 (335) and 1892 (338). In 1893 these had increased to 407 ; in 1894, to 415 ; in 1895, to 417 ; in 1896 there were 419 deaths from apoplexy and paralysis ; in 1897, 469 ; in 1898, 416 ; and in 1899, 457.

BRONCHITIS.—The deaths from bronchitis were but 5 more than in the previous year. There has been a steady increase in the proportionate mortality from bronchitis during the last twenty years, which must be attributed to something more than increased skill in differential diagnoses.

CANCER.—The deaths from cancer were 292 in 1899 ; 279 in 1898 ; 254 in 1897 ; 226 in 1896 ; and 234 in 1895. Cancer has increased considerably in its proportion of mortality to whole number of causes of death, during the last twenty-five years, and is probably due to increased facilities in diagnosis.

CHOLERA INFANTUM.—There were 473 deaths from cholera infantum in 1899 ; 468 deaths in 1898 ; 425 deaths in 1897 ; 545 deaths in 1896 ; and 500 deaths in 1895. The proportion to whole number of deaths was 6.34 per cent. For the last 33 years it has been about 6.4 per cent.

CONSUMPTION.—There were 823 deaths from consumption, or pulmonary tuberculosis, in 1899. This does not include 40 from general tuberculosis. Added to this there were 71 deaths from tubercular meningitis, 12 from tubercular enteritis, 5 from tubercular laryngitis, 11 from tubercular peritonitis, 8 from tabes mesenterica, and 2 from tubercular adenitis.

A decided contrast will be seen in the proportion of the different diseases, by observation of the diagram shown on page 131. Here, considering the condition for 34 years, it will be seen that consumption has exceeded pneumonia nearly one hundred per cent. as a cause.

DIARRHŒA AND DYSENTERY.—The mortality from these diseases was 13 more in number than in the previous year, or 111 in 1899, and 98 in 1898.

DIPHTHERIA.—This disease had a mortality of 86 in 1899, which was 7 less than in 1898; 68 of these were in Providence county, 40 being in Providence city. The percentage to the whole number of deaths was 1.15. In 1898 it was 1.35.

FEVERS, MALARIAL.—These had a mortality of 30 in 1899, and 31 in 1898.

FEVER, TYPHOID.—There were 90 deaths from typhoid fever in 1899, and 76 in 1898. Typhoid fever, as a disease and as a cause of death, has gradually lessened in both proportions, as compared with other important diseases, during the last 15 years.

HEART, DISEASES OF.—The deaths from diseases of the heart numbered 648, against 549 in 1898. Diseases of this organ have been gradually increasing during the last thirty-three years. See Table LXXVIII, page 231, Reg. Rep.

INFLUENZA.—The number of deaths reported as from this disease in 1899 was 219, an increase of 114 over that in 1898. During the year 1892 there were 336 deaths from this cause.

KIDNEYS, DISEASES OF.—The number of deaths from diseases of the kidneys in 1899 was 477; the number in 1898 was 471. Diseases of these organs have been gradually assuming large importance as causes of death during the last thirty-four years. The ratio of mortality for five years, 1885-89, was nearly five times as large as the ratio for the years 1890-95. See Table LXXXI, page 241, Reg. Rep.

PNEUMONIA.—The number of deaths caused by pneumonia in 1899 was 686, as against 542 in 1898. Pneumonia has gradually increased in importance as a cause of death for the last fifteen years. See Reg. Rep., Table LXXXVI, page 251.

SCARLET FEVER.—The number of deaths in 1899 was 29, 8 more than in 1898. The proportion was 0.4 per cent. of the whole number of deaths. Scarlet fever has largely decreased in epidemic prevalence and proportion of mortality during the last fifteen years, as compared with previous periods of fifteen years each.

SMALL-POX.—There were no deaths from small-pox in 1899, there were two in 1894, none in 1893, and four in 1892. The diminution of cases, and the decrease of mortality as a consequence, has been quite remarkable during the last fifteen years. The efficacy of vaccination has had remarkable endorsement.

DIPHThERIA FOR 1899.

CITIES AND TOWNS.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total.
Barrington.....	0	0	0	0	0	0	0	0	0	0	0	0	0
Bristol.....	0	1	0	0	0	0	0	0	0	0	0	0	1
Warren.....	0	0	0	1	.....	0	1	1	0	0	.....	.....	3
Coventry.....	0	0	1	0	0	0	0	0	0	0	0	0	1
East Greenwich..	0	0	0	0	1	1	0	0	0	0	0	.....	2
*West Greenwich	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Warwick.....	0	0	0	1	0	0	0	0	0	0	0	0	1
Jamestown.....	0	0	0	0	0	.....	0	0	0	0	0	.....	0
Little Compton...	0	0	0	0	0	0	0	0	0	0	0	0	0
Middletown.....	0	0	0	0	0	0	0	0	0	0	0	0	0
Newport.....	2	0	0	1	1	0	0	0	3	1	0	0	8
New Shoreham.....	.....	.....	0	0	.....	.....	.....	.....	.....	.....	0	0	0
Portsmouth.....	0	0	0	0	0	0	0	0	0	0	.....	0	0
Tiverton.....	0	0	0	1	.....	11	0	0	0	0	0	0	12
Burrillville.....	0	0	0	0	0	0	0	0	0	0	0	0	0
Central Falls.....	0	1	1	3	0	0	0	0	0	1	5	1	12
Cranston.....	3	0	2	0	0	.....	.....	.....	.....	1	1	2	9
Cumberland.....	.....	0	.....	.....	.....	0	0	0	0	0	0	0	0
East Providence.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Foster.....	0	0	0	0	0	0	0	0	0	0	0	0	0
Glocester.....	0	0	0	0	0	0	0	0	0	0	0	0	0
Johnston.....	.....	0	.....	.....	.....	4	0	0	3	1	0	1	9
Lincoln.....	.....	0	.....	.....	.....	0	0	0	0	0	0	0	0
North Providence	1	0	0	1	0	3	0	0	0	0	0	3	8
North Smithfield	0	0	0	0	.....	.....	.....	0	0	0	0	0	0
Pawtucket.....	6	3	.....	.....	2	0	2	0	1	2	3	3	22
Providence.....	.....	14	15	.....	15	5	11	9	8	17	15	31	140
Scituate.....	0	0	0	0	0	0	.....	.....	.....	.....	.....	.....	0
Smithfield.....	0	0	0	0	0	0	0	0	1	1	1	2	5
Woonsocket.....	6	4	3	3	.....	0	2	1	6	10	10	6	51
Charlestown.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
*Exeter.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Hopkinton.....	0	0	0	.....	0	0	0	0	1	0	0	0	1
Narragansett.....	0	0	0	0	0	0	0	.....	.....	.....	.....	.....	0
North Kingstown	0	0	0	0	0	1	0	3	0	1	0	1	6
Richmond.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	0	0
South Kingstown	0	0	0	0	0	0	0	0	0	0	0	0	0
Westerly.....	0	0	0	0	0	0	0	0	0	0	6	1	7
Total.....	18	23	22	11	19	25	16	14	23	35	41	51	298
“ 1898.....	54	46	31	30	28	19	13	6	12	34	39	31	343
“ 1897.....	103	47	67	59	61	48	38	59	77	147	117	70	893
“ 1896.....	117	76	74	108	70	49	53	45	69	121	114	125	1021
“ 1895.....	62	33	31	26	50	35	55	52	100	137	227	164	972
“ 1894.....	35	17	31	23	41	32	7	10	23	33	32	58	341

*Has no health officer.

SCARLET FEVER FOR 1899.

CITIES AND TOWNS.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total.
Barrington.....	0	1	0	0	0	0	0	0	0	0	0	0	1
Bristol.....	1	0	2	0	0	0	2	0	3	2	1	4	15
Warren.....	8	0	0	0	.....	1	0	0	5	2	.....	.....	16
Coventry.....	1	0	1	0	0	0	0	0	1	2	2	2	9
East Greenwich..	0	1	5	1	2	0	2	0	0	0	7	.....	18
*West Greenwich	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Warwick.....	0	3	2	3	2	1	1	3	1	3	2	6	27
Jamestown.....	1	0	0	0	0	.....	0	0	0	0	0	.....	1
Little Compton...	0	1	0	0	0	0	0	0	0	0	4	0	5
Middletown.....	1	0	0	0	0	0	0	0	0	0	0	0	1
Newport.....	0	5	3	1	6	3	2	2	0	3	0	1	26
New Shoreham...	.....	.....	0	0	.....	.....	.....	.....	.....	.....	0	0	0
Portsmouth.....	0	0	5	0	0	0	0	0	0	0	.....	0	5
Tiverton.....	0	3	1	1	.....	3	3	2	2	4	1	1	21
Burrillville.....	0	0	2	2	0	0	0	0	0	0	0	0	4
Central Falls.....	4	5	1	1	1	0	0	0	1	1	1	5	20
Cranston.....	4	3	1	9	8	.....	.....	.....	.....	3	4	5	37
Cumberland.....	.....	.....	3	.....	.....	0	0	0	5	4	2	5	19
East Providence.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Foster.....	2	0	0	0	1	1	0	0	0	0	1	1	6
Glocester.....	0	0	0	0	0	0	0	0	0	0	0	0	0
Johnston.....	0	.....	.....	.....	.....	0	0	2	0	0	1	0	3
Lincoln.....	1	.....	.....	.....	.....	1	2	0	0	2	0	0	6
North Providence	0	0	0	0	0	0	0	0	0	0	0	0	0
North Smithfield	0	0	0	0	.....	.....	.....	0	1	2	12	3	18
Pawtucket.....	3	4	.....	.....	1	2	2	0	1	3	6	6	28
Providence.....	13	23	.....	.....	21	16	11	12	38	32	38	64	268
Scituate.....	3	1	0	0	0	0	.....	.....	.....	.....	.....	.....	4
Smithfield.....	0	0	0	0	0	0	0	0	0	0	0	0	0
Woonsocket.....	4	2	2	2	.....	2	0	2	7	5	8	9	43
Charlestown.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
*Exeter.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Hopkinton.....	0	0	0	.....	0	0	0	0	0	0	0	0	0
Narragansett.....	0	0	0	0	0	0	0	.....	.....	.....	.....	.....	0
North Kingstown	0	0	0	0	0	0	0	0	0	0	0	0	0
Richmond.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	0	0
South Kingstown	0	0	0	0	1	0	0	0	0	0	1	0	2
Westerly.....	1	0	0	0	0	0	0	0	0	0	0	3	4
Total.....	33	46	48	20	43	30	25	23	65	68	91	115	607
" 1898.....	66	57	47	40	58	48	15	25	26	79	66	45	572
" 1897.....	80	47	47	51	34	57	41	35	42	77	53	65	629
" 1896.....	78	97	61	72	48	30	29	28	33	46	92	87	701
" 1895.....	168	132	118	123	69	78	56	47	55	63	87	91	1087
" 1894.....	133	95	91	70	71	53	33	33	58	77	103	122	989

* Has no health officer.

TYPHOID FEVER FOR 1899.

CITIES AND TOWNS.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total.
Barrington	0	0	0	0	0	0	0	0	0	0	0	0	0
Bristol	1	2	0	0	0	0	1	5	22	4	1	0	36
Warren	0	0	0	0	.....	0	0	0	2	0	.....	.....	2
Coventry	0	0	0	0	0	0	0	1	1	0	0	0	2
East Greenwich..	0	0	0	0	0	1	1	2	8	1	0	.....	13
*West Greenwich	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Warwick.....	0	0	0	0	0	1	0	1	1	1	0	0	4
Jamestown	0	0	0	0	0	.....	0	0	0	0	0	.....	0
Little Compton..	0	0	0	0	0	0	0	0	0	0	0	0	0
Middletown	0	0	0	0	0	0	0	0	0	0	0	0	0
Newport.....	2	0	0	1	2	1	6	8	5	14	2	9	50
New Shoreham...	.....	.....	0	0	.....	.....	.....	.....	.....	.....	0	0	0
Portsmouth.....	0	0	0	0	0	1	0	0	0	0	.....	0	1
Tiverton	0	0	0	0	.....	0	0	0	1	0	0	0	1
Burrillville.....	0	0	0	0	0	0	0	0	0	0	0	0	0
Central Falls.....	0	0	0	0	0	0	1	1	0	2	0	0	4
Cranston	1	2	9	1	3	.....	.....	.....	.....	0	0	0	16
Cumberland.....	.....	0	.....	.....	.....	0	0	0	0	0	0	0	0
East Providence.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Foster.....	0	0	0	0	0	0	0	0	0	0	1	0	1
Glocester.....	0	0	0	0	0	0	0	1	1	0	0	1	3
Johnston.....	.....	0	.....	.....	.....	0	0	0	0	2	0	0	2
Lincoln.....	.....	0	.....	.....	.....	0	0	0	0	1	0	0	1
North Providence	0	0	0	0	0	0	0	0	0	0	0	0	0
North Smithfield	0	0	0	0	.....	.....	.....	0	1	0	0	0	1
Pawtucket.....	0	0	.....	.....	0	0	0	2	9	2	1	1	15
Providence.....	.....	4	3	.....	4	5	12	15	28	18	17	24	130
Scituate.....	0	0	0	0	0	0	.....	.....	.....	.....	.....	.....	0
Smithfield.....	0	0	0	1	0	0	0	0	0	0	0	0	1
Woonsocket.....	0	0	0	1	.....	1	2	0	4	3	2	1	14
Charlestown.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
*Exeter.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Hopkinton.....	0	0	1	.....	0	0	0	0	0	0	0	1	2
Narragansett.....	0	0	0	0	0	0	0	.....	.....	.....	.....	.....	0
North Kingstown	0	0	0	0	0	0	0	0	1	0	1	0	2
Richmond.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	0
South Kingstown	0	0	0	0	0	0	0	0	0	0	2	0	2
Westerly	3	0	0	1	1	0	1	4	5	2	5	1	23
Total.....	7	8	13	5	10	10	24	40	89	50	32	38	326
" 1898.....	20	20	33	18	10	6	8	16	28	39	25	28	251
" 1897.....	18	9	6	8	12	9	5	21	33	39	35	35	230
" 1896.....	33	17	21	14	9	13	19	46	65	31	31	26	325
" 1895.....	104	35	15	18	8	13	30	25	34	46	53	90	471
" 1894.....	61	27	54	23	25	14	13	54	59	76	55	31	492

* Has no health officer.

TUBERCULOSIS.

*Examinations of Sputum for Tuberculosis from January 1, 1899,
to January 1, 1900.*

CLINICAL DIAGNOSIS.	Total.	Tubercular Bacilli present.	Tubercular Bacilli absent.	Past cases in family.	Present cases in family.
Bronchitis.....	74	16	58	21	1
Bronchitis, chronic.....	35	12	23	12	2
Tuberculosis, pulmonary.....	309	149	160	101	2
Tuberculosis, general.....	1	.....	1	1	.....
Tubercular laryngitis.....	11	6	5	2	.....
Pleurisy.....	5	3	2	3	.....
Pneumonia.....	10	1	9	1	.....
Influenza.....	4	1	3	2	.....
Asthma.....	2	.....	2	1	.....
Empyema.....	4	.....	4	.....	.....
Post nasal catarrh.....	2	.....	2	1	.....
Pharyngeal catarrh.....	1	.....	1	1	.....
Trachitis.....	1	.....	1	.....	.....
Acute rheumatism, with symptoms of T. B.	1	.....	1	.....	1
No diagnosis, susp. tuberculosis.....	25	6	19	7	.....
Total.....	485	194	291	153	6

TUBERCULOSIS.

Number of examinations of sputum..... 485
 Number in which tubercle bacilli were found..... 194
 Number in which tubercle bacilli were not found..... 291

During the year there were 485 specimens of sputum submitted for examination, with the supposition on the part of the attending physician that tuberculosis might be a factor in the causation of the symptoms of the patient.

Of these, in 309 the clinical symptoms present were sufficiently distinctive to lead the physicians to believe that tuberculosis of the *lungs* was present. In 194 of these cases the examination of the specimen of sputum showed the presence, in greater or lesser quantity of tubercle bacilli. This would make 40 per cent. of cases where the clinical diagnosis coincided with the bacterial findings, while in 160 cases, or in 60 per cent., the bacilli of this disease were not found. While this negative result is of value, yet it does not carry the weight of a distinct negative, as to the actual presence of the disease, for it is possible to obtain from the patient a specimen of sputum which is composed of only the saliva and secretions from the larynx, and containing none from the air passages in the lungs. The organisms may also be present at times, in the lung, either lying dormant or encapsulated, and will not be discharged into the air passages, and become a part of the sputum, until a degenerative process is set up which breaks down the tissues about the organisms and sets them free.

In the eleven cases of tubercular laryngitis six were positive. The application of this method of diagnosis is especially valuable in this form of the disease, inasmuch as the appearance of the larynx may indicate the presence of ulcerative processes, and the formation of tubercles from other causes.

It is of especial value in these cases, for the organism may not as yet have invaded the lung, but if the cases are neglected, they may readily be carried to the lung or intestine, and there propagate the disease.

It is of interest to note that, of 109 cases of chronic and acute bronchitis, in 28 cases the diagnosis was erroneous, and the presence of tuberculosis was established in the bronchi, if not, also, in the lungs. The constitution of the patient, however, being sufficiently strong, as yet, to prevent the invasion of the organisms

into large areas, the symptoms present were not sufficiently distinct, or alarming, to warn the physician of the dangerous element which was present. In 33 instances, where the diagnosis of bronchitis was made, there had been other cases of the disease in the family.

RECORDS OF ALL CASES OF CONSUMPTION IN THE STATE.

As a part of the investigation of the subject of tuberculosis in man, a card catalogue record of all deaths from pulmonary tuberculosis has been arranged. At present this data is available from the commencement of the year 1890, and is completed to date. This division of the work affords much interesting material for study. The number of deaths for the different years was as follows :

Deaths in 1890.....	852
“ “ 1891.....	740
“ “ 1892.....	759
“ “ 1893.....	722
“ “ 1894.....	705
“ “ 1895.....	839
“ “ 1896.....	846
“ “ 1897.....	777
“ “ 1898.....	886
“ “ 1899.....	972
<hr/>	
Total.....	8,098

These 8,098 cases are recorded on cards with the following data : Name, address, age, color, married, single, or widow, name before marriage, and date of death. By collecting the names in this way it is observed that certain names recur at varying periods of time, and by looking up the individual case further it will be found that this death has occurred in a family where previous deaths from consumption have taken place, the address in many cases being the same.

In addition to the card catalogue of the names of the decedents, a separate card catalogue of the *premises* where the death occurred has been kept, and thus it is possible to ascertain when any particular house may have, by chance, been infected with this disease. It is further possible to ascertain if more than one case has occurred in any one house.

OUTBREAK OF TYPHOID FEVER IN WOONSOCKET.

During the latter part of May, information was received from the superintendent of the Woonsocket Water Works, Mr. Byron I. Cook, that there was a report circulating that an unusual number of cases of typhoid fever were present in that city, and, for the purpose of ascertaining if the cases present could be connected in any way with the city water supply, requested the secretary to visit the city and investigate the local conditions.

For the purpose of ascertaining how many cases existed, and what knowledge of the condition might be obtained at once, a communication was directed to the health officer of the city, Dr. A. M. Paine, asking for the number of cases present, and the association of water and milk supply to these cases.

In answer to this inquiry the following statement was received :

WOONSOCKET, R. I., June 13, 1899.

Gardner T. Swarts, M. D., Secretary of the State Board of Health :

DEAR DOCTOR.—In reply to yours of the 12th instant, I have to state that I have received no official report of any cases of typhoid fever in this city during the past two months or more, and as all the physicians in Woonsocket thoroughly understand that they are expected to report such contagious or infectious diseases as may come to their knowledge from time to time, to the health department, according to the city ordinances, and personal instructions as by inclosed card, which cards are always in their hands, I conclude that if there is typhoid fever here they are uncertain in their diagnosis and therefore have not reported.

I have heard incidentally of one or two families where there are cases of supposed typhoid fever, but have been able to trace them to no definite conditions as source.

I shall look after the matter at once, and confer with you if there are any new developments.

Yours truly,

A. M. PAINE,

Health Officer.

NOTICE OF CONTAGIOUS DISEASES.

— • • • —

Name of Patient

Age of Patient

Residence

Disease

..... *Physician.*

Date

WOONSOCKET CITY ORDINANCES, CHAP. 50, SECS. 1 And 2.

Every physician having knowledge of the existence of any contagious disease within the city of Woonsocket shall immediately make a report thereof in writing to the Health Officer of said city, on blanks furnished for the purpose.

The diseases referred to in the preceding section shall include, among others, small-pox, diphtheria, typhoid fever, typhus fever, scarlet fever or scarlatina.

As is customary under these conditions, when the physicians have for any reason become lax with their reports of contagious diseases, and for the purposes of immediate and correct information as to the amount of typhoid fever present, the following circular letter was sent to every physician in Woonsocket and adjacent villages:

DEAR DOCTOR.—Will you kindly report to me any cases of typhoid fever which you may have attended during the past five weeks, and oblige,

Replies were promptly received from eight physicians. From the fact that no response was received from other physicians to whom the letter was sent, it is assumed that they had had no cases.

From the physicians reporting it was ascertained that four had had no cases, one had had two suspicious cases but which had not developed sufficiently distinct symptoms to consider them as cases of typhoid fever. Blood from these two cases, submitted by

the attending physician to the department for examination, showed no reaction to the Widal test. One other case in another family, reported by this physician as typhoid fever, was taken sick on May 12th. The Widal test of blood from this patient was made on June 14th, and showed a positive reaction. Another case also examined at the same time showed the Widal reaction. Two other physicians each reported two cases in one family. One physician reported six cases, three being in one family and the other three in separate families.

It will be seen from these reports that there were twelve cases of typhoid fever which had been present, attended by three different physicians, and that none of these cases were reported to the health officer of the city. One of these physicians inquired if it was a requirement that these cases should be reported, and expressed his desire and intention of reporting all future cases.

An inspection of the premises where the actual as well as the supposed cases occurred, disclosed the fact that the residences of the patients were not confined to any one locality; the water supply varied, some having the city supply and others using wells upon the premises.

A bacteriological analysis of the well water of one of the cases showed the water to be of fair quality for a surface well. It was so situated as to preclude any chance pollution from drains, cess-pools, or vaults.

The milk supply was from various sources.

As a result of the examination of the five premises where the twelve cases had occurred, no determination could be made as to where the patients had contracted the disease.

The conditions, however, which existed between the physicians and the health officer were to be deplored, since it placed the city in an unfortunate position in case an epidemic should be pending or under way, and much valuable time might be lost in searching out a common cause, in case one existed, owing to the failure of the physicians to report the cases as soon as reported.

IMPROVEMENT IN THE WATER SUPPLY OF THE EAST PROVIDENCE WATER COMPANY.

During the year 1898 the board inspected the water shed of the Ten Mile river, being the stream from which the East Providence Water Company obtained its supply of water. This supply was furnished to a large number of consumers in the town of East Providence.

The attention of the water company was called to the fact that the stream was being polluted by the wastes of numerous factories, and received house and surface sewage from many towns in Massachusetts and from some localities in the State of Rhode Island. It was estimated by the Massachusetts Board of Health that the contaminations included the wastes from 4,500 persons.

A request was lodged with the board of health of Massachusetts asking for relief from these conditions, but it was found that that board could give no assistance.

The attention of the East Providence Water Company was called to this condition of affairs, and the need and urgency of that company in taking some steps to purify the supply or to abandon the same was shown.

The water company at once agreed to take immediate steps for the improvement of the supply so far as it might be able to do so; and upon recommendation of the secretary of the board of the system, known as the mechanical or American method of filtration, the company placed a contract for a mechanical filter with the New York Filter Company, the operation of which should be satisfactory to the board of health.

A plant was placed in a filter building near the pumping station,

with all the necessary piping, valves, and tanks necessary for the perfect operation of a mechanical filter plant.

Before acceptance of the plant, and to satisfy the board of health and for its own satisfaction, the company at its own expense instituted a series of experiments or tests of this plant.

The plant proving satisfactory in every way, it was accepted and continued in commission, and has continued to furnish to the consumers a clear, white water, freed from the taste of the raw or unfiltered water, and freed from bacteria to the extent of 98 to 99 per cent. on the average.

A paper, read by the secretary before a meeting of the American Public Health Association, giving the figures and details of the experiment, will be found in the appendix.

ADDITION TO THE LAWS GOVERNING THE REGISTRATION OF BIRTHS, DEATHS, AND MARRIAGES.

As might be expected by those familiar with the conditions governing the record of vital statistics, it not infrequently happens that important data in reference to an incomplete record of a death or of a marriage or birth is brought to the notice of the city or town registrar. Facts in reference to parentage or other relationship may have been omitted in an original return. Old papers may be discovered or information received establishing the identity of a person unknown so far as the facts on the record show. Many deaths are recorded on tombstones of ancient date, but no record is to be found in the town clerk's office. The tombstone may go to decay, but the records, if properly preserved, will always be available. Births are quite frequently unreported. No physician or even midwife is in attendance at the confinement. The parents are not familiar with the requirements and advantages of the law in this connection, and make no report. The records to be found in the parish church, where the record of the christening of infants is to be found, is often replete with the names of children born in the State, but no record of the birth is found in the town records.

That these cases might not be lost, and as no provision had been made to preserve them, the following act was passed at the January session of the legislature :

STATE OF RHODE ISLAND AND PROVIDENCE PLANTATIONS.

JANUARY SESSION, A. D. 1899.

AN ACT IN ADDITION TO CHAPTER 100 OF THE GENERAL LAWS,
ENTITLED "OF THE REGISTRATION OF BIRTHS, DEATHS, AND
MARRIAGES."

It is enacted by the General Assembly as follows:

SECTION 1. Chapter 100 of the General Laws, entitled "Of the registration of births, death, and marriages," is hereby amended by adding thereto a section to read as follows :

"Sec. 25. If it shall come to the knowledge of a town clerk, or any person appointed under the provisions of section 1 hereof, that any birth, marriage, or death which has occurred in his town or city has not been returned to him as required by this chapter, or has not been recorded, such town clerk or person shall record the facts called for by section 3 hereof to the extent he shall receive in any way any credible information of the same. If any error shall be made in the return of any birth, marriage, or death, or shall be discovered in the records of births, marriages, or deaths, such error shall be corrected without erasure. In each case the source of the information from which the addition or correction is made, and the date of making the same, shall be noted on the face of the record, and such town clerk or person shall attest the same by his signature thereon. Such town clerk or person shall annually, on or before the first Monday in March, make duly certified returns to the secretary of the state board of health of all such additions and corrections made during the year ending on the thirty-first day of December next preceding. Such town clerk or person shall receive, for each such additional record and return of a death, marriage, or birth made by him, the same fees specified in sections 12 and 19 hereof for recording and returning deaths, marriages, and births respectively."

SEC. 2. This act shall take effect from and after its passage.

WORKING OF THE MEDICAL PRACTICE ACT.

LEGISLATION.

A bill was introduced at the January session of the legislature amending the medical practice act, and providing for the issuance of a certificate only upon the examination of the applicant; a diploma from a recognized medical school not being sufficient to prove the qualifications of the applicant.

The amendment also provided for the omission of freedom to practice midwifery to midwives, they being under the present law permitted to practice, being excluded from the requirements of holding a certificate under the present law. Provision was also made whereby it would be possible to refuse to grant a certificate, or whereby a certificate already granted might be revoked, upon presentation of evidence that the applicant or practitioner had been found guilty of crime; also a more distinctive explanation as to what constitutes the practice of medicine, the latter provision being introduced for the purpose of correcting the weakness of the present law as interpreted by the supreme court on the appeal of three cases of the State Board of Health against three Christian Scientists, so-called.

In the decision it was ruled that the practice of medicine necessarily embraced the use of drugs in the common acceptance of the term as a remedial agency, and that prayer and suggestion did not constitute the practice of medicine.

The bill was referred to the Committee on Judiciary, and a preliminary hearing was accorded the petitioners to explain the purpose of the amendment, and upon application from attorneys

representing the Christian Science church, and others, a public hearing was given.

The hearing was attended by over two hundred persons, mostly ladies representing the sect of scientists, and some so-called metaphysicians and mind curers. They were represented in their argument against the amendment by four attorneys and by a leader of the church.

The committee was impressed by the arguments presented, which were directed to questioning the constitutionality of such a law and the question of individual or personal liberty, and the bill failed to pass even with modifications which were satisfactory to the opponents of the amendment.

RULING.

August, 1899, the following ruling was passed by the board in respect to the requirements of schools to be in good standing before the board for the issuance of a certificate to practice medicine upon the presentation of a diploma only, without examination :

“On and after January first, 1900, the diploma of any medical college where a course of instruction does not extend over a period of at least eight months in each and every year of its four-year course will not be accepted, and such a college shall be rated as not in good standing, and a supplementary examination will be required of applicants presenting such a diploma.”

CONTINUANCE OF APPEAL.

In the year 1896, Julius A. Pirlot made application to the board for a certificate, presenting as his qualifications a duplicate of a diploma purporting to be issued by the *Faculté de Médecine de Paris*.

The board, not being satisfied with the credentials shown, had referred the applicant for examination. He refused to undertake the examination, but established a drug store in the city of Providence, declaring to the secretary that he thought he could prac-

tice without compliance with the requirements of the board, where he offered to the public free consultation and sold to such persons as sought his advice drugs which he compounded in his store, which drugs always cost the purchaser at least two dollars. The board secured evidence of this procedure and placed it before the court, and he was found guilty at a trial by jury in the court of common pleas.

An exception was placed against this decision, on the ground that the judge in charging the jury stated that it did not matter whether the defendant received a fee or not, meaning that the reception of a bonus for the drugs supplied with the advice really constituted the fee. On this exception, however, the appellate division saw fit to reverse the decision and quashed the trial.

A second suit was at once instituted on the same evidence and brought to the higher court. The jury disagreed, and the case was left for the time being; and pending the action taken by the defendant in making an appeal against the refusal of the board to grant a certificate, it was considered advisable by the attorney-general, who prosecuted the case, to remove from the evidence before the jury any influence which might arise as to any genuine value of the diplomas presented by the defendant.

After many delays, owing to illness on the part of the appellant, a hearing was brought to issue before the appellate division.

The appellant presented the alleged copy of a diploma from the *Faculté de Médecine de Paris*, and claimed a right to a certificate upon that ground. The board submitted evidence showing that he had been guilty of unprofessional conduct in the State of Massachusetts, where he had imposed upon a citizen to the extent of an endeavor to take away the man's real estate and home in payment for alleged professional services, shown to be unnecessary and extortionate, and whereon he had brought suit against his patient.

The evidence also presented affidavits from the records of the *Faculté de Médecine de Paris*, stating and showing that Julius A. Pirlot never attended that school of medicine; that his name was

never entered on its books, and that consequently no diploma was ever issued to Julius A. Pirlot.

The defendant offered a plea that there was some mistake somewhere, and petitioned the court for time to rebut this later evidence. The court granted a period of time for this purpose. The defendant, however, never re-appeared to establish his claim, and the decision of the board in its refusal was affirmed. The defendant leaving the State, the prosecution for practice of medicine without license was abandoned.

PROSECUTION.

During the year 1898 the attention of the secretary was called to four different cases wherein certain persons were alleged to have established a business for the treatment and cure of disease. One of these cases was that of a graduate of a medical school, the standing of which was not rated at the standard required by the board as in good standing. An examination was required of the applicant, who failed to appear for examination, and, without obtaining a certificate, opened an office in the city of Providence, and proceeded in the practice of medicine.

Investigation of the case proved the allegations to have foundation, and he was brought before the district court, and upon evidence presented was found probably guilty and referred to the grand jury. Before the grand jury, upon evidence presented, he was found probably guilty, and his case was set down for trial before the court of common pleas. where, after due trial, he was found guilty.

The other three cases of the four which came before the board at this time were practitioners, or operatives, in that form of practice known to the medical profession as healing by suggestion, or mind curists.

In one of these cases it was found that the practitioner, or healer, had made several visits upon a boy suffering with disease of the knee joint; that he, the practitioner, had made several visits upon

the patient, who was the son of people in poor circumstances; that he had advised the patient in reference to the diseased joint to the effect that he should not believe that there was pain or disease present, and that the joint would get better, and for this advice had collected as much of his fee as the parents of the patient could accumulate and borrow from friends.

The second case was brought to the attention of the board through a member of the board being called upon to advise in a case where a gentleman had become so interested in the subject of mind healing that his own mind had become weakened, and he was committed to the Butler Hospital for the Insane for a certain period. It was ascertained that the aggravation and continuance of his diseased condition was caused by his taking readings or lessons or interpretations of certain works on mind cure, for which lesson he paid each time a fee of ten dollars; but with each visit to the reader the patient's mind became more unsettled, until he meditated violence to members of the family.

The third case was brought to the notice of the board by a physician who was called to treat a little girl who was suffering from a severe state of nervous depression caused by her being accosted on the street by a gentleman.

The child was suffering from a diseased hip, which caused lameness. The gentleman who spoke to her, evidently noting the deformity, stopped her and told her that she ought not to suffer from such a trouble, and that if she would come to his office he would cure her of the disease. This was the statement brought home to the parents by the child. In corroboration of her experience was the state of nervousness in which she appeared, and also a business card which the gentleman had presented to her, and which bore the name of a well-known and much respected business man and the legend that he was a metaphysician. The card also bore the address and office hours.

Through the agents of the board it was ascertained that all three of these persons were prepared to receive patients who were suffering from supposed or real disease, and to give them advice

for which they accepted a fee for the services rendered. No drugs were given or ordered. The advice was oral, and the treatment consisted of prayer in the presence of the patient.

Assuming that the treatment of disease, or the offer or attempt to treat disease, and, from the instructions given by the various chairs of therapeutics in the various medical schools, that the use of suggestion was an important and useful part of the medical resources of the regular practitioner, and was as necessary at times as the use of drugs, the secretary, agreeably with the provisions of the statutes or general laws of the State, entered complaint against these three practitioners, and they were heard before the district court and found probably guilty and remanded to the grand jury, which body in turn, upon the evidence presented, also found a true case against each of the three men.

Pending their assignment for trial before the court of common pleas, a demurrer was entered before the supreme court upon the question of constitutionality of the complaint as fully set forth in the following copy of the record of the decision handed down by the full bench of the supreme court of the State :

STATE *vs.* WALTER E. MYLOD.

PROVIDENCE—JULY 18, 1898.

PRESENT : Matteson, C. J., Stiness, Tillinghast, Wilbur, Rogers, Douglas and Bosworth, J. J.

One cannot question the constitutionality of a statute unless his rights would be affected by its enforcement. The duty of a court to construe a statute arises only when its meaning is obscure ; if the legislature has plainly expressed its meaning, construction is excluded. In the construction of penal statutes, words and phrases must be taken in their ordinary acceptation and popular meaning, unless a contrary intent appears.

Words of such statutes are not restricted in meaning within the narrowest limits, nor extended beyond their common interpretation ; and the accused is entitled to the benefit of any reasonable doubt as to whether the acts done are within the meaning of the statute.

The object of the statute relating to the registration of physicians is to regulate the practice of medicine and surgery, and thereby secure the safety and protect the health of the public.

The "practice of medicine" relates to the art of preventing, curing, or alleviating disease or pain; popularly, it consists in the discovery of the cause and nature of disease and the administration of remedies, or prescribing treatment therefor.

Mere words of encouragement, prayer for divine assistance, or the teaching of "Christian Science," do not constitute the practice of medicine in either of its branches.

The State Board of Health is not clothed with arbitrary power; it can only determine whether an applicant for a certificate to practice medicine possesses the statutory qualifications to practice in accordance with the recognized theories of a particular school or system.

The assumption of the title of "doctor" is not prohibited by statute, and is not unlawful.

COMPLAINT charging the practice of medicine and surgery for reward without registration and license. Certified from a District Court and heard on the constitutionality of Gen. Laws, R. I., cap. 165.

BOSWORTH, J. The defendant was adjudged probably guilty in the District Court of the Sixth Judicial District of the State of Rhode Island. Said complaint, which was made under cap. 165, Gen. Laws, R. I., alleges that the defendant, at Providence, on the twenty-sixth day of November, 1897, "did then and there practice medicine and surgery for reward and compensation, without lawful license, certificate, and authority, and not being then and there duly registered according to law."

The defendant, upon arraignment, pleaded guilty, and subsequently, and before judgment, raised a question of the constitutionality of said cap. 165, which question, in accordance with the provisions of cap. 250, Gen. Laws, R. I., was certified and transmitted to the Appellate Division of the Supreme Court for decision.

Gen. Laws R. I., cap. 165, provides for the registration of physicians, and its object is to regulate the practice of medicine and surgery. Under this chapter, authority to practice medicine and surgery is through a certificate issued by the State Board of Health, and said board, upon application, and without discrimination against any particular school or system of medicine, is required to issue such certificate to any reputable physician, practicing or desiring to begin the practice of medicine or surgery in this State, who possesses certain specified qualifications.

Section 2 of said chapter, in part, is as follows:

"SEC. 2. It shall be unlawful for any person to practice medicine or surgery in any of its branches, within the limits of this state, who has not exhibited and registered in the city or town clerk's office of the city or town in which he or she resides, his or her authority for so practicing

medicine as herein provided, together with his or her age, address, place of birth, and the school or system to which he or she proposes to belong.”

Section 8 of said chapter is as follows :

“SEC. 8. Any person living in this state, or any person coming into this state, who shall practice medicine or surgery, or attempt to practice medicine or surgery in any of its branches, or who shall perform or attempt to perform any surgical operation for or upon any person within the limits of this state, for reward or compensation, in violation of the provisions of this chapter, shall upon conviction thereof be fined fifty dollars, and upon each and every subsequent conviction shall be fined one hundred dollars and imprisoned thirty days, or either or both, in the discretion of the court; and in no case, where any provision of this chapter has been violated, shall the person so violating be entitled to receive compensation for services rendered. To open an office for such purpose, or to announce to the public in any other way a readiness to practice medicine or surgery in this state, shall be to engage in the practice of medicine within the meaning of this chapter.”

For the State, Everett Hall testified, substantially, that he called upon the defendant at his residence and asked to be cured of malaria; that the defendant said he was Doctor Mylod; that the defendant sat looking at the floor, with his eyes shaded, as if engaged in silent prayer, for about ten minutes, and then looking up said, “I guess you’ll feel better;” that defendant gave him a book entitled “A Defence of Christian Science;” that he gave defendant one dollar; that defendant did not recommend nor administer any drug or medicine, nor take his pulse or temperature, nor do any of the things usually done by physicians.

Clarence Vaughn, in behalf of the State, testified that he called upon the defendant at his residence on two occasions and requested to be cured of grippe; that he gave defendant one dollar each visit; that the defendant said he was Doctor Mylod; that defendant gave him a card stating the defendant’s office hours and describing defendant as Christian Scientist, but not in any way referring to defendant as a physician; that defendant did not take his pulse or temperature, nor do any of the other things that physicians do in treating disease, but seemed to be sitting in silent prayer; that defendant gave him a book entitled “An Historical Sketch of Metaphysical Healing;” that defendant told him to look, not on the dark side of things, but on the bright side, and to think of God, and it would do him good, since thought governs all things.

Dr. Gardiner T. Swarts, secretary of the State Board of Health, testified that the defendant is not a registered physician; that said defendant does

not have authority to practice medicine in Rhode Island, and that physicians often cure disease without the use of drugs or medicine.

For the defence, the charter of the Providence Church of Christ, Scientist, was introduced in evidence, and the defendant testified, substantially, that he is the president and first reader or pastor of said church; that said church has been organized and has held regular services for seven years; that said church belongs to the sect known as Christian Scientists, in whose belief God and Jesus Christ and the Bible hold a supreme place; that the principal distinguishing difference between Christian Scientists and other sects consists in the belief of the former regarding disease, which they believe can be reduced to a minimum through the power of prayer; that the public religious services of said church consist of silent prayer, music, reading of the scriptures, and of extracts from "Science and Health," by Mary G. Baker Eddy; that he, beyond a greater realization of truth which his longer study of Christian science may have given him, professed to have no greater power over illness than that possessed by any member of his church; that he did not tell the witnesses Hall and Vaughn that he could cure them, nor did he call himself a doctor; that he did not attempt to cure them by means of any power of his own; that he assured them that it is God alone who heals, acting through the human mind; that all he did was to engage in silent prayer for them, and to endeavor to turn their thoughts to God, and toward the attainment of physical perfection; that the efforts made for them were precisely the same in character as those which he makes for his congregation at the public services of his church; that he does not practice medicine nor attempt to cure disease; that he has no knowledge of medicine or surgery; that, as a Christian Scientist, he never recommended to anyone a course of physical treatment; that he has only the method of prayer, and effort to encourage hopefulness for all who come to him in public or private, and whatever disease they imagine they have; and that his ministrations often can be, and are, rendered as effectively in the absence as in the presence of the beneficiary.

Other witnesses were called, but there was no material variance in the testimony, except that the witnesses Hall and Vaughn testified that the defendant said that he was Doctor Mylod, which testimony was contradicted by the defendant.

The constitutional question raised by the defendant is that, under §3, Art. 1, Const. R. I., which secures to him religious freedom, he has a right to perform the acts shown by the testimony to have been performed, and that, therefore, said cap. 165, Gen. Laws R. I., under which said complaint

was made, is unconstitutional if, and in so far as, it provides a penalty for the performance of said acts.

This question, properly, cannot be considered by the court unless said cap. 165 is sufficiently broad to include within its prohibitive provisions the acts of the defendant; for the defendant cannot question the constitutionality of said chapter unless his rights would be affected by its enforcement. *State v. Snow*, 3 R. I. 64.

There is no testimony tending to show that the defendant practiced or attempted to practice surgery, or that he made any diagnosis or examination to ascertain whether the witnesses Hall and Vaughn were suffering from disease, or that he administered or prescribed any drug, medicine, or remedy, or that he claimed any knowledge of disease or the proper remedies therefor.

Upon the testimony, the only claim that can be made by the State is that upon a card handed to one of the witnesses appeared the name and office hours of the defendant; that the defendant said he was Doctor Mylod; that he offered silent prayer for the witnesses Hall and Vaughn, who claimed to be suffering from disease; that he gave said witnesses each a book in which, presumably, the principles of Christian science were taught, explained, and defended; that he told the witness Vaughn, substantially, to look on the bright side of things and think of God, and it would do him good; and that he accepted compensation for his services.

Did these acts of the defendant constitute the practice of medicine, in violation of cap. 165, Gen. Laws R. I.?

It is the duty of the court to give effect to the intention of the law-making power as embodied in the statutes. The legislature is presumed to mean what it has plainly expressed, and when it has so expressed its meaning, construction is excluded. It is only when the meaning of the statute is obscure, or the words employed are of doubtful meaning, that, in order to give effect to the legislative intention, the duty of construction arises. In the construction of penal statutes, a well-established rule is that words and phrases must be taken in their ordinary acceptation and popular meaning, unless a contrary intent appears. While the words of such statutes are not to be restricted in meaning within the narrowest limits, neither are they to be extended beyond their common interpretation; and if there is a reasonable doubt as to whether the acts done are within the meaning of the statute, the party accused of its violation is entitled to the benefit of that doubt. *Endlich on Int. of Statutes* §§ 329, 330.

It follows, therefore, that the acts complained of are excluded from the operation of said cap. 165 unless the words "practice of medicine," taken

in their ordinary or popular meaning, include them, or unless it appears from said chapter that the legislative intent was to give to said words a meaning broader and more inclusive than the popular one.

Medicine, in the popular sense, is a remedial substance. The practice of medicine, as ordinarily or popularly understood, has relation to the art of preventing, curing, or alleviating disease or pain. It rests largely in the sciences of anatomy, physiology, and hygiene; it requires a knowledge of disease, its origin, its anatomical and physiological features, and its causative relations; and, further, it requires a knowledge of drugs, their preparation and action. Popularly it consists in the discovery of the cause and nature of disease, and the administration of remedies or the prescribing of treatment therefor.

Prayer for those suffering from disease, or words of encouragement, or the teaching that disease will disappear and physical perfection be attained as a result of prayer, or that humanity will be brought into harmony with God by right thinking and a fixed determination to look on the bright side of life, does not constitute the practice of medicine in the popular sense.

The State, however, contends that said cap. 165, taken as a whole, indicates a legislative intention to give to the words "practice of medicine" a meaning broader than the popular one. In support of this contention it calls attention to the provision contained in section 8 of said chapter, that "To open an office for such purpose," that is, for the practice of medicine or surgery, "or to announce to the public in any other way a readiness to practice medicine or surgery in this State, shall be to engage in the practice of medicine within the meaning of this chapter." In view of this provision, the State contends that to practice medicine it is not necessary to use internal or other remedies, nor to make diagnoses, nor to have a patient, but that the opening of an office for the practice of medicine, or the announcement of a readiness to engage in such practice, constitutes a practice of medicine; and, therefore, as the statute applies not only to those who actually practice, but also to those who announce in any way a readiness to practice, the State contends that the legislature intended to give a broader than the generally accepted meaning to the words, "practice of medicine."

We are unable to agree with this contention. Without passing upon the provision referred to, and whatever its significance, it certainly cannot be construed to broaden, in a general sense, the meaning of the words "practice of medicine." The most that can be claimed for it is that it operates to broaden the offence created by said cap. 165, so that the attempt or the

announcement of a readiness to practice medicine becomes equivalent to the actual practice.

The State further calls attention, in support of its contention, to section 6 of said chapter, which provides that "nothing in this chapter shall be so construed as to discriminate against any particular school or system of medicine," and it argues that, as the statutory prohibition relates to the practice of medicine "in any of its branches," and that as certain diseases, such as insanity and nervous prostration are treated by the so-called "regular school" without the use of drugs, and that as all schools recognize the study of mental conditions as affecting bodily health as forming a distinct branch of medicine, the legislative intention to give to the words "practice of medicine" a construction sufficiently broad to include the practice of Christian science is clearly manifest.

The words of the provision against discrimination, like the words "practice of medicine," must be taken in their ordinary sense and meaning. It is a matter of common knowledge that among medical men there are defined differences regarding the treatment of diseases. These differences have resulted in different schools or systems of medicine. A recognition of the existence of such differences, however, does not broaden the meaning of the words "practice of medicine" to include the practice of that which, in the popular sense, is not a practice of medicine. Neither does the statutory reference to the practice of medicine "in any of its branches" affect the meaning of the words in question. While it is true that the study and treatment of mental disease constitute one of the departments or branches of medicine, in which the influence of the mind over the body is recognized, yet mere words of encouragement, prayer for divine assistance, or the teaching of Christian science as testified, in the opinion of the court, does not constitute the practice of medicine in either of its branches in the statutory or popular sense.

To give to the words "practice of medicine" the construction claimed for them by the State, in the opinion of the court would lead to unintended results. The testimony shows that Christian Scientists are a recognized sect or school. They hold common beliefs, accept the same teachings, recognize as true the same theories and principles. If the practice of Christian science is the practice of medicine, Christian science is a school or system of medicine, and is entitled to recognition by the State Board of Health to the same extent as other schools or systems of medicine. Under said cap. 165 it cannot be discriminated against, and its members are entitled to certificates to practice medicine, provided they possess the statutory qualifications. The statute, in conferring upon the State Board

of Health authority to pass upon the qualification of applicants for such certificates, does not confer upon said board arbitrary power. The board cannot determine which school or system of medicine, in its theories and practices, is right; it can only determine whether the applicant possesses the statutory qualification to practice in accordance with the recognized theories of a particular school or system. It would be absurd to hold that under said cap. 165, which provides against discrimination, the requirements necessary to entitle an applicant to a certificate were such that the members of a particular school or system could not comply with them, thus adopting a construction which would operate not as a discrimination only, but as a prohibition. On the other hand, to hold that a person who does not know or pretend to know anything about disease, or about the method of ascertaining the presence or the nature of disease, or about the nature, preparation, or use of drugs or remedies, and who never administers them, may obtain a certificate to practice medicine, is to hold that the operation of the statute is to defeat the beneficial purposes for which it was enacted.

The cases cited by the State do not sustain its contention. In *Nelson v. Harrington*, 72 Wis. 591, the plaintiff brought suit against the defendant, who was a clairvoyant physician, to recover damages for alleged unskillful treatment. In testimony, it appeared that the defendant held himself out as a healer of disease and accepted compensation; that he determined the nature of the disease for which he treated the plaintiff, and the character of the remedies he administered, while in a mesmeric state or trance condition. The court held that the defendant was bound to exercise reasonable skill, and that the knowledge of the plaintiff of his methods was no defence to the action.

In *Bibber v. Simpson*, 59 Me. 181, which was an action brought to recover compensation for services, the opinion of the court is as follows: "The services rendered were medical in their character. True, the plaintiff does not call herself a physician, but she visits her sick patients, examines their condition, determines the nature of the disease, and prescribes the remedies deemed by her most appropriate. Whether the plaintiff calls herself a medical clairvoyant, or a clairvoyant physician, or a clear-seeing physician, matters little; assuredly such services as the plaintiff claims to have rendered purport to be, and are to be deemed, medical, and are within the clear and obvious meaning of R. S. 1871, c. 13, § 3, which provides that 'no person except a physician or surgeon, who commenced prior to February 16, 1831, or has received a medical degree at a public medical institution in the United States, or a license from the Maine Medical Association, shall

recover any compensation for medical or surgical services, unless previous to such services he had obtained a certificate of good moral character from the municipal officers of the town when he then resided.' The plaintiff has not brought herself within the provisions of this section and cannot maintain this action."

In *Wheeler v. Sawyer*, Atl. Rep. 67 (Me. 1888), the plaintiff, a Christian Scientist, brought suit to recover for services. Cap. 13, § 9, R. S. (Me.) 1888, is the same as cap. 13, § 3, R. S. 1871, except that it does not relate to physicians and surgeons practicing prior to February 16, 1831. The plaintiff had received the certificate of good moral character required by the statute. The court said: "We are not required here to investigate Christian science. The defendant's intestate chose that treatment. There is nothing unlawful or immoral in such a contract. Its wisdom or folly is for the parties, not for the court to determine."

In *State v. Buswell*, 40 Neb. 158, the defendant was indicted for the unlawful practice of medicine. In Nebraska, Laws of 1891, cap. 35, the practice of medicine, surgery, and obstetrics is prohibited except by persons possessing certain qualifications. Section 17 of said cap. 35, in part, is as follows: "Sec. 17. Any person shall be regarded as practicing medicine within the meaning of this act who shall operate on, profess to heal, or prescribe for or otherwise treat any physical or mental ailment of another." The defendant was a Christian Scientist, and the evidence against him upon which the State relied was similar in character to that in the case under consideration. The trial court instructed the jury that, in order to convict the defendant, they must find that the defendant had practiced medicine, surgery, or obstetrics, as those terms are usually and generally understood, and the State excepted.

The Supreme Court, in sustaining the exception, uses the following language: "Governed by the instruction, the jury could not do otherwise than to acquit, for there was no proof to meet its requirements."

Again: "The statute does not merely give anew definition to language having already a given and fixed meaning. It rather creates a new class of offences, in clear and unambiguous language, which should be interpreted and enforced according to its terms."

Again: "Under the indictment the sole question presented, upon the evidence, was whether or not the defendant, within the time charged, had operated on, or professed to heal or prescribe for, or otherwise treated, any physical or mental ailment of another."

The decision of the Nebraska court, therefore, is that while the practice of Christian science is not a practice of medicine as those terms usually

and generally are understood, yet that, under the section above quoted, the practice of Christian science, being a treatment for physical or mental ailments, is a violation of the law.

In Missouri, the statute requires that before a person may lawfully practice medicine or surgery he must file a copy of his diploma with the clerk of the county court, and it further provides (R. S. § 6304) that any person, not qualified, who shall practice medicine or surgery shall not be permitted to receive compensation for services rendered, "as any such physician or surgeon."

In *Davidson v. Bohlman*, 37 Mo. App. 576, the plaintiff having brought suit to recover for services, the question raised was whether the services were performed by the plaintiff as a physician. The plaintiff had practiced medicine, lawfully, for nearly thirty years, first as an allopathic physician, and later as an electric physician; he had a diploma from an electric medical college, but had failed to file a copy of it, as required by law; the services for which he claimed compensation consisted of electrical treatment: the bill for services furnished the defendant described the plaintiff as "Dr. T. P. Davidson," and the plaintiff called a medical practitioner to testify to the value of the services in question. The Court of Appeals, upon the testimony, held that the services were performed by the plaintiff as a physician, and that, not being qualified to practice, he could not recover.

The assumption of the title of "doctor," if defendant assumed such title, was not unlawful. Cap. 165 does not, in terms, prohibit the use of the word "doctor" by any person, whatever his business or profession may be. Its use is entirely immaterial, in any case, unless under such conditions or circumstances, or in such connection, that it may serve as an announcement or indication of a readiness to engage in the practice of medicine or surgery.

The object of the statute in question is to secure the safety and protect the health of the public. It is based upon the assumption that to allow incompetent persons to determine the nature of disease, and to prescribe remedies therefor, would result in injury and loss of life. To protect the public, not from theories, but from the acts of incompetent persons, the legislature has prescribed the qualifications of those who may be entitled to perform the important duties of medical practitioners. The statute is not for the purpose of compelling persons suffering from disease to resort to remedies, but is designed to secure to those desiring remedies competent physicians to prepare and administer them. See *Smith v. Lane*, 24 Hun. (31 N. Y.) 632.

The opinion of the court is that the words "practice of medicine" as

used in Gen. Laws R. I. cap. 165, must be construed to relate to the practice of medicine as ordinarily and popularly understood, and that the acts of the defendant do not constitute a violation of said chapter. The court, therefore, cannot properly pass upon the constitutional question raised, for the rights of the defendant would not be affected by any conclusion to which the court might arrive.

STATE *vs.* DAVID ANTHONY.

PROVIDENCE—JULY 18, 1898.

PRESENT: Matteson, C. J., Stiness, Tillinghast, Wilbur, Rogers, Douglas, and Bosworth, J. J.

The practice of "Christian science" by one who has not complied with the provisions of Gen. Laws R. I. cap. 165, is not an unlawful practice of medicine; and hence in a complaint against him thereunder, he cannot attack the constitutionality of said chapter.

COMPLAINT charging the unlawful practice of medicine. Certified from a District Court, and heard on constitutional questions.

PER CURIAM. The defendant, who is a Christian Scientist, was adjudged probably guilty, by the District Court of the Sixth Judicial District, of the unlawful practice of medicine, in violation of cap. 165, Gen. Laws R. I. The defendant claims that said cap. 165, so far as it relates to the acts complained of, is in violation of Art. 1, § 3, Const. R. I. The evidence upon which he was adjudged guilty showed a practice of Christian science, and, substantially, was like that set forth in the opinion of the court in *State v. Mylod, ante*, 262. The testimony fails to show any violation of said cap. 165. Said chapter does not relate to the acts of the defendant, and, therefore, he cannot, in this proceeding, attack its constitutionality.

See opinion, *State v. Mylod*.

STATE *vs.* HENRY S. TAFT.

PROVIDENCE—JULY 18, 1898.

PRESENT: Matteson, C. J., Stiness, Tillinghast, Rogers, Douglas, and Bosworth, J. J.

Practice of the art of "metaphysical healing," for reward, without registration and license, is not a violation of Gen. Laws R. I. cap. 165, and the question of the constitutionality of the act is not open to a defendant in a complaint thereunder when the evidence shows only the practice of such art.

COMPLAINT charging the unlawful practice of medicine. Certified from a District Court, and heard on constitutional questions.

PER CURIAM. The defendant was adjudged probably guilty, by the District Court of the Sixth Judicial District, of a violation of cap. 165, Gen. Laws R. 1., "of the practice of medicine." The defendant, who is a believer in metaphysical healing, claims that said chapter, so far as it relates to the acts complained of, is in violation of Art. 1, § 3, Const. R. I.

Although the testimony differs somewhat in character from that in *State v. Mylod*, *ante*, 632, and *State v. Anthony*, *ante*, 644, it fails to show that the defendant, in the statutory sense, was guilty of an unlawful practice of medicine. This being so, the constitutional question is not before the court.

See opinion, *State v. Mylod*.

APPENDIX.

A REPORT OF A FOUR MONTHS' TEST OF A MECHANICAL FILTER PLANT AT EAST PROVIDENCE, R. I.

BY GARDNER T. SWARTS, M. D.,*

SECRETARY STATE BOARD OF HEALTH, PROVIDENCE, R. I.

I desire to report the result of a test of a mechanical filtration plant, located at East Providence, in the State of Rhode Island:

The supply of a portion of this town is taken from the Ten Mile river, which is a stream of about twelve miles in length. It rises in the State of Massachusetts, and has on its borders several towns and a large number of jewelry manufactories, woolen mills, and dye houses. The wastes from all of these deliver directly into the river, and the river receiving the wastes from a population of 3,700.

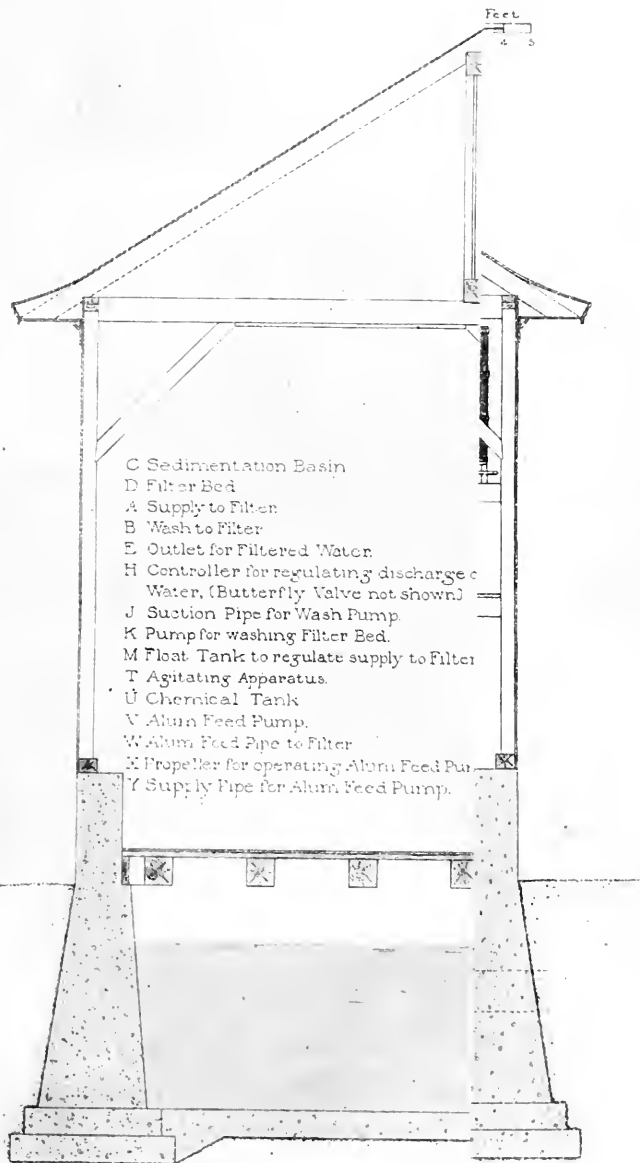
It was impossible for the State of Rhode Island to require a discontinuance of the pollution of the river, and the State of Massachusetts apparently had no authority in the matter. A civil suit, brought by the water company, against each polluter, would be the only means of enjoining against pollution. This would not only be expensive, but would require years of litigation before final removal of every source of pollution. It was therefore necessary that some immediate action be taken and the supply, with its pumping station and mains, condemned and abandoned, or the water purified, as far as practicable, before delivering the supply to the consumers.

Upon request of the management of the company for advice from the State Board of Health, the mechanical, or American, filtration method was recommended. This advice was given in

* Paper read before the American Public Health Association, October 31, and November 1, 2 and 3, 1899, at Minneapolis, Minn.

r Mfg. Co.
 ousand gallon
 Filter Plant.
 Water Co.

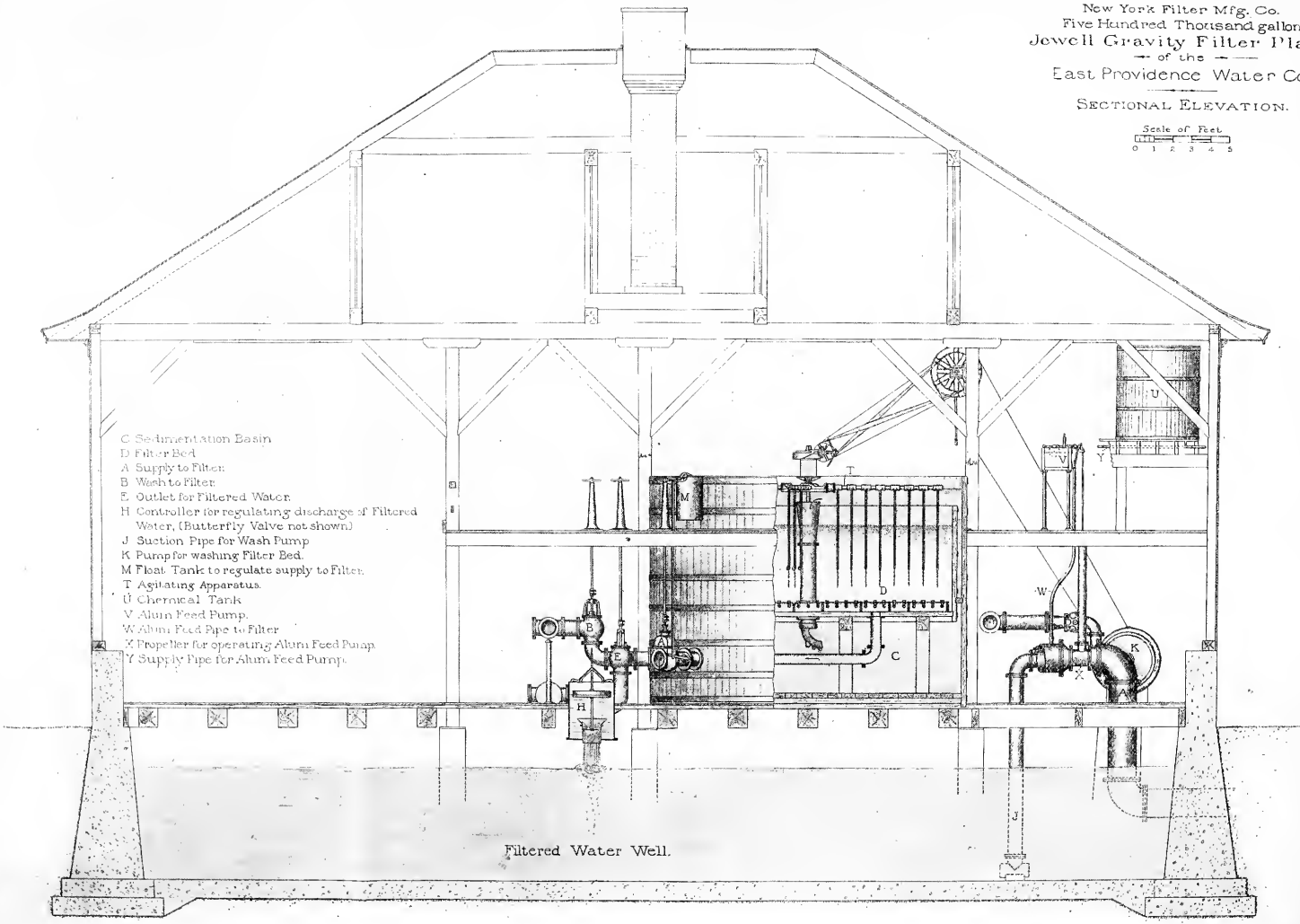
ELEVATION.



New York Filter Mfg. Co.
 Five Hundred Thousand gallon
 Jewell Gravity Filter Plant.
 of the
 East Providence Water Co.

SECTIONAL ELEVATION.

Scale of Feet
 0 1 2 3 4 5



- C Sedimentation Basin
- D Filter Bed
- A Supply to Filter
- B Wash to Filter
- E Outlet for Filtered Water
- H Controller for regulating discharge of Filtered Water, (Butterfly Valve not shown)
- J Suction Pipe for Wash Pump
- K Pump for washing Filter Bed
- M Float Tank to regulate supply to Filter
- T Agitating Apparatus
- U Chemical Tank
- V Alum Feed Pump
- W Alum Feed Pipe to Filter
- X Propeller for operating Alum Feed Pump
- Y Supply Pipe for Alum Feed Pump

Filtered Water Well.

preference to the use of the natural sand bed filtration on account of the location of the pumping station; the necessity of covering the beds in this climate, which would add materially to the original cost; for the purpose of removing completely the coloring matter which was found in the supply, and from the satisfactory and perfect control and celerity of cleansing to be found in the mechanical form of filtration.

The plant, while not a large one, yet consists of one initial of the type known as the "Jewell Gravity Filter," and supplied by the New York Filter Manufacturing Company, of New York.

In case a larger supply was required, it would be only necessary to repeat this initial size of filter indefinitely, therefore, the work of one initial would be the same as a number, although the water company, at the present time, is supplying but 200,000 gallons of water to its consumers. The daily capacity of the filter is available to 500,000 gallons at the rate of filtration of 125,000,000 gallon per acre per 24 hours.

The tests covered a period of about 144 days, or four months, and the operation of the filter was under the charge of the regular pumping engineer of the water company. The quantities of sulphate of alumina used were weighed out by him under advice of Mr. E. B. Weston, C. E., who also planned and superintended the construction of the whole plant.

The chemical analyses in the test were made by Prof. John Howard Appleton, of Brown University.

The bacterial analyses, as well as the determination of color and alkalinity, were made by the writer.

The precipitant, or coagulant, or chemical used throughout the test was sulphate of alumina, which was dissolved in the proportions of one part of sulphate of alumina in about 20 parts of filtered water. This solution was made about twenty-four hours before being used, the supply for the day's run being taken from a second tank in which the alumina had been dissolved the day before.

The sulphate of alumina used contained about 22 per cent. of

alumina (Al_2O_3), except from March 10th to 11th, inclusive; from June 1st to 7th, inclusive, and from June 27th to 28th, inclusive, when an inferior and cheaper grade, containing about 17.53 per cent., was used. The object in using this inferior grade was to determine if the same, or increased, quantities of sulphate of alumina might not give equally good results with less cost. It was found, however, that the increase in quantity brought the expense to equal the cost of smaller quantities of the expensive sulphate of alumina, the maximum efficiency depending upon the amount of the alumina (Al_2O_3) in the applied chemical.

Sulphate of alumina was added to the raw water at the rate of one grain per gallon, except from March 10th to 11th; March 20th to 25th, and from May 1st to 6th, when 0.75 of a grain was used; March 27th to 30th, when 0.6 was used, and from June 22d to 28th, when 1.25 grains were used. These variations were naturally made to determine the minimum amount of the applied chemical which would give maximum efficiency.

The average removal of bacteria during the test, including the use of the inferior grades and the increased quantity of sulphate of alumina, was 98.7 per cent. The average removal of bacteria was 99.2 per cent. during the time when one grain of sulphate of alumina of the higher grade which contained 22 per cent. of alumina (Al_2O_3), was used.

Ten per cent. gelatine was used in the bacteriological test, and the plates exposed to ordinary refrigerator temperature, the period of growth being from four to six days, according to the variation of the external temperature.

The sample of applied water was taken from the mains within a few feet of the sediment chamber, the sulphate of alumina being introduced by means of a (so-called) Egyptian pump whose movements were controlled by a propeller in the supply main a short distance beyond the point from where the supply was taken.

The effluent, or filtered, sample was taken a few feet distant from the outlet of the filter.

As the result of the computations made by Mr. Weston, the chemical results show that there was:

Six per cent. less total solids in the filtered water than there was in the raw water.

One per cent. less chlorine in the filtered water.

Sixty one per cent. less ferric oxide in the filtered water.

Thirty-eight per cent. less aluminic oxide in the filtered water.

Twenty-nine per cent. less free ammonia in the filtered water.

Sixty-three per cent. less albuminoid ammonia in the filtered water.

Eighty-three per cent. less color in the filtered water.

Twenty per cent. increase of hardness in the filtered water.

The filtered water in every instance was alkaline.

Attention is called to the fact that the preceding summary of results shows that the filtered water contained 38 per cent. less alumina than did the raw water before the sulphate of alumina was added to it.

It is customary to give the results of the removal of bacteria in percentages, the efficiency or removal being computed in that proportion.

In making a proposition for satisfactory filtration, it is sometimes stated that an average efficiency of 98 or 99 per cent. removal will be guaranteed. It seems to the writer that such an indicator, although mathematically correct, is not fair to the operation of a given plant.

As an illustration, if the effluent shows the presence of ten organisms to the cubic centimeter of water tested, and the applied water contained one thousand, an efficiency of 99 per cent. is attained, but should there be but one more organism in the count of the effluent, or eleven, the percentage would drop to 98.98 per cent., or below a guarantee of 99 per cent. The same drop from 99 per cent. would occur if there was one less organism in the applied water, giving an efficiency of only 98.99 per cent.

When, as it sometimes occurs, there is an increase in the applied water from the average of one or two hundred, to up into the

thousands, the effluent does not show any such increase over the two or ten as the case may be. There is not the proportionate increase in the effluent, that we should look for, and yet this is not apparent when we consider the results of percentages. This is especially evident when we study the filtration of sewage wastes, where we deal with millions in the applied water and have only hundreds in the effluent, the efficiency being apparently exceedingly high when judged by percentage.

Again, although a filter may be giving its average efficiency in the effluent, say, of ten, should the applied water drop to two hundred, there is a great drop in the efficiency and yet the water which we are to supply to the consumer is of no worse quality than when we were treating the filter with a supply having a high count.

It would seem fairer and more satisfactory to speak of the efficiency of a filter as being one which will give an average effluent count of not over a certain number under the conditions of an applied water which shall not have a count lower than a certain high maximum. These conditions would be more satisfactorily attained and would appear more applicable to the conditions of efficiency than by comparison of percentages.

Another illustration may be seen in cases, where of two filters, the second gives a lower count in the effluent than the first; yet the first will give apparently increased percentage of average efficiency over the second, simply on account of a large increase in the numbers of the applied water.

In other words, all other requirements being equal, we should favor the process, whatever it may be, that is going to give us the purest water bacteriologically, regardless of the amount of impurity of the original supply.

It may be stated that no complaint has been received from any consumer concerning the increase in hardness, which naturally comes with this method of treatment, but commendation has been given for the whiteness of the water.

The apparent increase in hardness is in fact more a matter of

chemical computation than any actual change which can be perceptible to the ordinary senses and physical functions of persons, or which may be noticeable to the producers of steam. Should any objection exist in the use of this water for the production of steam, there will be available an excellent opportunity to determine that fact through the present use of the water in iron condensing vats in a certain chemical manufactory which is attached to this supply.

The following tables give briefly the chemical and bacteriological results of this short run, under actual conditions of supply to the consumers :

TABLE No. 1.

TEST OF THE EAST PROVIDENCE MECHANICAL FILTER.

CHEMICAL ANALYSES OF SAMPLES.

By PROFESSOR JOHN HOWARD APPLETON.

Rate of Filtration, 125,000,000 Gallons per Acre per 24 hours.

The numbers express parts (by weight) in one million parts of water (by weight).

DATE.	Total Solids.	Total Hardness.	Chlorine.	Ferrie Oxide.	Alumi- nic Oxide.	N as Free Ammo- nia.	N, as Al- bumi- noid Ammo- nia.	N, as Ni- trates	N, as Ni- trites.	
RAW WATER.										
March	9	36.4	15.0	3.0						
"	30	36.7	15.0	2.1	0.42	1.23	0.06	0.14	0.60	Trace
April	6	39.0	16.0	4.8	0.58	0.47	0.04	0.22	0.60	"
"	13	39.3	14.0	7.0	0.60	0.80	0.10	0.26	0.90	"
"	20	39.9	17.0	6.4	0.61	1.05	0.05	0.26	0.70	"
"	27	43.7	18.0	6.2	1.00	0.75	0.02	0.22	0.70	"
May	4	51.5	17.0	6.8	0.98	1.67	0.03	0.28	0.60	"
"	11	53.1	21.0	6.4	0.91	1.84	0.03	0.38	0.60	0
"	18	54.9	21.0	6.1	1.01	0.34	0.03	0.34	0.60	Trace
"	25	49.6	20.0	6.4	1.09	0.76	0.04	0.32	0.60	"
FILTERED WATER.										
March	9	32.2	17.0	3.0			0.03	0.07	0.60	Trace
"	30	30.7	18.0	4.0	0.18	0.97	0.04	0.10	0.50	"
April	6	38.9	22.0	4.8	0.61	0.44	0.04	0.10	0.60	"
"	13	40.4	19.0	6.0	0.45	0.55	0.05	0.11	0.70	"
"	20	37.4	22.0	6.4	0.28	1.02	0.05	0.10	0.60	"
"	27	39.6	19.0	6.2	0.19	0.26	0.01	0.07	0.60	"
May	4	49.5	22.0	7.7	0.42	1.08	0.02	0.11	0.60	"
"	11	47.2	23.0	6.3	0.20	0.55	0.02	0.14	0.40	0
"	18	49.8	23.0	5.8	0.13	0.47	0.03	0.12	0.50	Trace
"	25	46.5	24.0	7.2	0.40	0.45	0.02	0.13	0.60	"

TABLE No. 2.

TEST OF THE EAST PROVIDENCE MECHANICAL FILTER.

BACTERIOLOGICAL ANALYSES OF SAMPLES.

Rate of Filtration, 125,000,000 Gallons per Acre, per 24 hours.

DATE.	Bacteria per cubic centimetre.		Per cent. of Reduction.	Grains of Sulphate of Alumina per Gallon.
	Raw Water.	Filtered Water.		
March 10	954	55	94.24	0.75*
" 11	480	47	90.21	0.75*
" 13	768	4	99.48	1
" 14	595	5.5	99.08	1
" 15	Sterilized filter bed.			
" 16	1299	9	99.31	1
" 17	1257	7	99.45	1
" 18	683	4	99.41	1
" 20	658	7	98.94	0.75
" 21	1888	26	98.62	0.75
" 22	1044	31	97.03	0.75
" 23	1550	37	97.61	0.75
" 24	3652	51	98.60	0.75
" 25	1818	16	99.12	0.75
" 27	512	11	97.85	0.60
" 28	1142	6	99.47	0.60
" 29	1025	4	99.61	0.60
" 30	822	16	98.05	0.60
" 31	782	1.5	99.82	1
April 1	499	7	98.60	1
" 3	636	1.5	99.76	1
" 4	628	2	99.68	1
" 5	545	4	99.27	1
" 6	855	3	99.65	1
" 7	1910	19	99.01	1
" 8	1009	6.5	99.36	1
" 10	1175	6.5	99.45	1
" 11	943	9.3	99.01	1
" 12	1443	9	99.38	1
" 13	336	4.3	98.73	1
" 14	Lost.	4		1
" 15	998	1.6	99.84	1
" 17	765	7.5	99.02	1
" 18	578	6.3	98.91	1
" 19	865	11	98.73	1
" 20	546	3	99.45	1
" 21	699	2	99.97	1
" 22	359	3	99.17	1
" 24	293	3	98.98	1
" 25	697	0.5	99.93	1
" 26	724	11	98.48	1
" 27	422	9	97.87	1

* Inferior grade of sulphate of alumina having a relative value of about 80 per cent. of the sulphate of alumina used at other times.

TABLE NO. 2.—CONTINUED.

DATE.	Bacteria per cubic centimetre.		Per cent. of Reduction.	Grains of Sulphate of Alumina per Gallon.
	Raw Water.	Filtered Water.		
April 28	280	2.5	99.11	1
“ 29	370	6	98.38	1
May 1	370	4.5	98.78	0.75
“ 2	469	8	98.30	0.75
“ 3	403	13	96.77	0.75
“ 4	289	61	78.89	0.75
“ 5	310	6	98.07	0.75
“ 6	316	21	93.35	0.75
“ 8	266	9	96.62	1
“ 9	976	3	99.69	1
“ 10	708	13.5	98.09	1
“ 11	150	5	96.66	1
“ 12	466	3.5	99.25	1
“ 13	305	4	98.69	1
“ 15	225	1	99.56	1
“ 16	238	0.5	99.79	1
“ 17	306	0.5	99.83	1
“ 18	473	0	100.00	1
“ 19	210	0.5	99.76	1
“ 20	228	1	99.56	1
“ 22	238	0.5	99.79	1
“ 23	279	1	99.64	1
“ 24	228	1	99.56	1
“ 25	275	0	100.00	1
“ 26	270	0.5	99.81	1
“ 27	185	1	99.46	1
“ 29	454	4.5	99.01	1
“ 30	334	11.5	96.56	1
“ 31	458	10	97.82	1
June 1	1478	10	99.32	1*
“ 2	387	16	95.87	1*
“ 3	411	21	94.89	1*
“ 5	548	18	96.72	1*
“ 6	434	23	94.70	1*
“ 7	587	10	98.30	1*
“ 8	331	4	98.79	1
“ 9	494	8.5	98.28	1
“ 10	341	6.3	98.15	1
“ 12	354	0.3	99.92	1
“ 13	243	2	99.18	1
“ 14	181	0.3	99.83	1
“ 15	265	1	99.62	1
“ 16	388	0.6	99.85	1
“ 17	277	2.5	99.10	1
“ 19	Lost.	14		1
“ 20	233	8	96.56	1
“ 21	291	4.3	98.52	1
“ 22	175	2.3	98.69	1.25*
“ 23	162	1	99.38	1.25*

* Inferior grade of sulphate of alumina having a relative value of about 80 per cent. of the sulphate of alumina used at other times.

TABLE NO. 2.—CONCLUDED.

DATE.	Bacteria per cubic cen- timetre.		Per cent. of Reduction.	Grains of Sulphate of Alumina per Gallon.
	Raw Water.	Filtered Water.		
June 24	276	2.3	99.17	1.25*
" 26	416	3.3	99.21	1.25*
" 27	226	3.6	98.41	1.25*
" 28	242	1.6	99.34	1.25*
" 29	2096	4	99.81	1
" 30	849	4	99.53	1
July 10	2026	5.6	99.72	1
" 11	321	11	96.57	1
" 12	398	12	96.98	1
" 13	262	20	92.37	1
" 14	402	5	98.76	1
" 15	148	1.6	98.92	1
" 17	383	5.6	98.54	1
" 18	279	0	100.00	1
" 19	225	1.6	99.29	1
" 20	86	2.3	97.32	1
" 21	365	8.3	97.73	1
" 22	764	3	99.61	1
" 27	175	0.6	99.66	1
" 28	159	4.6	97.11	1
" 29	473	2.3	99.51	1
" 31	444	1.3	99.71	1
August 1	424	1	99.76	1
" 2	313	2	99.36	1

* Inferior grade of sulphate of alumina having a relative value of about 80 per cent. of the sulphate of alumina used at other times.

TABLE No. 3.

TEST OF THE EAST PROVIDENCE MECHANICAL FILTER.

COLOR OF SAMPLES.

Rate of Filtration, 125,000,000 Gallons per Acre per 24 hours.

The unit of color is practically that color yielded by properly nesslerizing 50 cubic centimetres of water containing one one-hundredth of a milligram of ammonia gas (or its equivalent).

DATE.	Raw Water.	Filtered Water.	Grains of Sulphate of Alumina per Gallon.	DATE.	Raw Water.	Filtered Water.	Grains of Sulphate of Alumina per Gallon.
March 10	.50	.10	0.75*	April 21	.60	.10	1
“ 11	.50	.10	0.75*	“ 22	.60	.10	1
“ 13	.50	.10	1	“ 24	.60	.10	1
“ 14	.50	.10	1	“ 25	.60	.10	1
“ 15	Sterilized filter bed.			“ 26	.60	.10	1
“ 16	.50	.10	1	“ 27	.70	.10	1
“ 17	.50	.10	1	“ 28	.70	.10	1
“ 18	.50	.10	1	“ 29	.60	.10	1
“ 20	.50	.10	0.75	May 1	.60	.10	0.75
“ 21	.50	.10	0.75	“ 2	.60	.10	0.75
“ 22	.50	.10	0.75	“ 3	.70	.10	0.75
“ 23	.50	.10	0.75	“ 4	.70	.10	0.75
“ 24	.40	.10	0.75	“ 5	.70	.20	0.75
“ 25	.40	.10	0.75	“ 6	.70	.40	0.75
“ 27	.40	.10	0.60	“ 8	.70	.10	1
“ 28	.30	.10	0.60	“ 9	.70	.10	1
“ 29	.40	.10	0.60	“ 10	.70	.20	1
“ 30	.40	.10	0.60	“ 11	1.00	.10	1
“ 31	.40	.10	1	“ 12	1.00	.10	1
April 1	.40	.10	1	“ 13	.90	.10	1
“ 3	.40	.10	1	“ 15	.80	.10	1
“ 4	.40	.10	1	“ 16	.90	.10	1
“ 5	.40	.10	1	“ 17	.80	.10	1
“ 6	.40	.10	1	“ 18	.80	.10	1
“ 7	.40	.10	1	“ 19	.70	.10	1
“ 8	.40	.10	1	“ 20	.70	.10	1
“ 10	.50	.10	1	“ 22	.70	.10	1
“ 11	.40	.10	1	“ 23	.60	.10	1
“ 12	.50	.10	1	“ 24	.60	.10	1
“ 13	.50	.10	1	“ 25	.70	.10	1
“ 14	.50	.10	1	“ 26	.60	.10	1
“ 15	.50	.10	1	“ 27	.60	.10	1
“ 17	.50	.10	1	“ 29	.60	.10	1
“ 18	.60	.10	1	“ 30	.60	.10	1
“ 19	.60	.10	1	“ 31	.50	.10	1
“ 20	.60	.10	1				

* Inferior grade of sulphate of alumina having a relative value of about 80 per cent. of the sulphate of alumina used at other times

TABLE NO. 4.

TEST OF THE EAST PROVIDENCE MECHANICAL FILTER.

ALKALINITY OF SAMPLES.

Rate of Filtration, 125,000,000 Gallons per Acre per 24 hours.

(The Alkalinity is expressed as Calcium Carbonate, in Parts per 1,000,000.)

DATE.	Raw Water.	Filtered Water.	Grains of Sulphate of Alumina per Gallon.	DATE.	Raw Water.	Filtered Water.	Grains of Sulphate of Alumina per Gallon.
March 10	6.4	2.3	0.75*	April 21	11	4.5	1
" 11	6.0	2.7	0.75*	" 22	8.5	4.7	1
" 13	5.5	1.7	1	" 24	14	7	1
" 14	7.5	2	1	" 25	14	7	1
" 15	Sterilized filter bed.			" 26	14	6	1
" 16	6.7	1.5	1	" 27	14	6	1
" 17	7	2	1	" 28	14.5	6	1
" 18	6.7	2	1	" 29	13.5	6	1
" 20	6.2	1.7	0.75	May 1	14.5	7	0.75
" 21	7.7	1.5	0.75	" 2	15	8	0.75
" 22	6.5	2	0.75	" 3	13.5	7.5	0.75
" 23	5.5	1.7	0.75	" 4	15	7.5	0.75
" 24	6	2	0.75	" 5	14	6.5	0.75
" 25	5.7	1.5	0.60	" 6	15.5	6.5	0.75
" 27	7.2	3	0.60	" 8	15	6.5	1
" 28	9	4	0.60	" 9	14.5	6	1
" 29	6.5	3	0.60	" 10	15	6	1
" 30	7.7	3.5	0.60	" 11	14	6	1
" 31	9	2.7	1	" 12	14.5	6.5	1
April 1	8.5	3	1	" 13	14.5	5.5	1
" 3	9.2	2.7	1	" 15	15	5.5	1
" 4	9.5	3.2	1	" 16	14	5	1
" 5	8.7	3.2	1	" 17	14.5	6.5	1
" 6	6.5	3	1	" 18	14.5	6	1
" 7	11	3.7	1	" 19	14	6	1
" 8	10	3.2	1	" 20	14.5	6	1
" 10	9	3.7	1	" 22	14	8	1
" 11	10.5	3.2	1	" 23	14	6	1
" 12	11	4	1	" 24	14	7	1
" 13	10.2	Lost.	1	" 25	14	7	1
" 14	11.5	4	1	" 26	15	6	1
" 15	11.5	5	1	" 27	14.5	5	1
" 17	12	4.5	1	" 29	14	5	1
" 18	11	4	1	" 30	14	5	1
" 19	11	4.5	1	" 31	14.5	6	1
" 20	12	2	1				

* Inferior grade of sulphate of alumina having a relative value of about 80 per cent. of the sulphate of alumina used at other times.

METHODS OF COMPILATION USED IN PREPARING CENSUS AND REGISTRATION REPORTS.

BY DR. GÁRDNER T. SWARTS,*

SECRETARY, STATE BOARD OF HEALTH OF RHODE ISLAND.

Owing to the increased interest in vital statistics evinced by one of our western States, and the stimulus given to other States by the zealous agitation of the subject by its earnest registrar, I have been requested by the President of the Association to present such facts as are available as to the various methods at present in use for the computation, or compilation, of the data to be found in the return, or certificate, of death.

From the earliest times, a record of successive incidents of the same kind was kept by means of markings, and varied signs, upon parchment, tile, or stone. The aborigines of this country were in the habit of keeping their record hanging at their belt, in the form of scalp-locks, taken from their victims, while the earlier settler recorded his mortality statistics of aborigines destroyed, by notches cut into the stock of his gun.

At the present time, with the ready means afforded by the use of plumbago, inks and paper, the simplest form of notation has been what is called "the dot and dash system," a successive dot or dash being set against each distinct item that the data on the return presented. These in turn are counted, and the total set against the item. A variation is made at times between the dot and the dash, or any other distinctive mark, or check, which per-

* Paper read before the American Public Health Association, October 31, and November 1, 2 and 3, 1899, at Minneapolis, Minn.

mits of the more ready discovery of the particular bundle of returns which are successively examined.

One of the disadvantages of this system consists of the impossibility of determining which individual return has been noted incorrectly. If a failure is made to place a dot or dash, the discovery is not made until the total is made up; it then becomes necessary to do the work all over again, since the individual return which is omitted cannot be distinguished.

As an assistance, both in rapidity and convenience, in recording the tally, a self-counting, or tally sheet, was devised by Mr. Chas. F. Pidgin, who has been connected with the statistical work of the Massachusetts Bureau of Statistics of Labor for the past twenty-nine years, filling the position of chief clerk of that bureau since 1876. This sheet consists of a separate line for each item, the line consisting of a series of dots, the tenth dot being larger and more distinct than the previous nine. The advantage of this form of tally sheet is that the total may be read off at any time without counting up the number of dots or dashes. Variations of the form of dot, dash, bracket, or circle indicating the tally, may be used on these sheets to indicate different data, but which might be desirable in connection with the data first entered upon the same line, such as a different district, ward, or town.

This is more useful when the number of returns counted are small. It has the disadvantage of any dot and dash system.

In the course of his association with statistical work, and from his experience of the needs of the forms of work, Mr. Pidgin has invented and introduced many devices for facilitating the work of compilation.

The first of these was the use of the slip, or card system, upon which the whole data of the return was marked. These cards, or slips, were sorted into boxes, or racks, according to the data given upon the cards. These cards could then be counted, and if any deficiency was found in the total, the individual pack, or sort, could be quickly run through, and the missing or mistaken item found.

As an adjunct to the original Pidgin System, the trays, or boxes, receiving the cards were supplied with lids which closed automatically, by means of a stiff spring, but upon being opened, press upon a counting dial, thus giving the result of the count at the end of a sorting. This did away with counting the cards by hand.

As a part of the original system, and as a check against the introduction of a wrong card into the sort, or boxes, the record of the return was indicated by holes punched into the cards against the various data required. This punching was done by means of a hand puncher. A bunch of these when sorted would each necessarily have the same corresponding hole, and a wire being passed through this hole in the collected bunch, would meet with no resistance unless a wrong sort had been made, in which case the offending card could be withdrawn and placed in its proper division.

Improvement was next made upon the sorting boxes, by introducing into boxes a simple but effective counter which is operated by hand when the cards are sorted into their respective compartments. This form of machine, called "The Automatic Multiple Counting or Tabulating Machine," was devised and used by Mr. Pidgin in compiling the State Census of Massachusetts in 1895. This machine is operated directly from the original schedule, or return. It consists of a box having saw-tooth slits across the tin front. By lightly pressing a projecting arm, or wire, a spring throws this arm into the slots between the teeth. Each slot has a number indicated over it from one to nine. The lowest row indicates units, the second tens, the third hundreds, and the fourth thousands. When the unit arm has reached slot nine it is thrown back to zero with one sweeping motion, and the lever, or arms, of tens is touched once, throwing it into the first notch of the tens. Thus, by the aid of this simple device, counts may be made as high as ten thousand.

A device called "The Pin Board Electrical Tabulating System" was next produced by Mr. Pidgin. This consists of a stack of 108 counting machines which automatically adjust themselves at zero

as the result of simply pressing a button. These counters are erected before the operation, and are set in motion by an electrical connection which is operated from a pin board. A card having letters or characters representing the items to be recorded is placed over the pin board, and the pin and punch are driven through the card at the items indicated. This operation causes the counters to register and at the same time produces the punched card, thus accomplishing two results with one motion.

For this pin board may be substituted what Mr. Pidgin terms "The Electrical Typewriter Tabulator." The keys of the typewriter may be marked with transferable labels indicating the 108 items which are to be counted.

This machine is operated directly from the schedule, or return. This does away with the use of a card and with punching. Twenty-one index keys, or guides, are arranged on two sides of the keyboard which gives a guide to tabulation. By using the index, or guides, in correlation with the keys, a combination of items may be registered by the pressure of one key. In this way it is possible with one stroke to count the items of sex, nationality, color, conjugal relation, and age periods.

Mr. Pidgin claims that if this form of machine is operated even as slowly as one-half the ordinary speed of the typewriter, that 105 tables may be made per minute, or 6,300 registers per hour, or 44,100 tables per day of seven hours.

A "Multiple Adding or Chip System" has been used by Mr. Pidgin for a number of years. This system is for adding small numbers where a great number of totals are desired. Its capacity is from units to millions. Colors are used to indicate units, tens, etc. The digits are printed in large characters, the six being distinguishable from the nine. The operator selects the card numerals from the case as a type-setter would pick his type.

By this process, two hundred columns may be added at a time with only one result slip for the totals. The chips are counted after being drawn from the rack in which they are sorted. This may be done by using any of the counting devices previously de-

scribed, the typewriter tabulator being the most satisfactory. As the cards are counted, they may be sorted into a sorting box near by the operator, and thus be available at once for placing in the rack from which they are first drawn.

A device similar in operation to the "Pin Board Electrical Tabulating System," but differently constructed, has been devised by Mr. Herman Hollerith, of Washington, D. C., and is known as the "Hollerith Electrical Tabulating System."

This system consists of first preparing a card of exact size and shape upon which is printed the numbers, or the letters, which shall correspond to all the data which can possibly be found upon any given return of death or schedule of census.

Inasmuch as the causes of diseases, as well as occupations, are exceedingly numerous, it is found impracticable to represent each disease by a given number, or sign, but it is feasible to indicate the several classes of causation, and to indicate by a specific number the sub-divisions of those classes.

By a specially prepared machine these numbers, or signs, are punched out of the card for each item of the data given on a single return; this card, therefore, represents the return, reading in the form of punched holes. It is now possible to sort these cards by hand, using the punched holes as the heading, but where the number is large, the objection to the original Pidgin System in this method is not removed.

The next detail in the Hollerith System was to sort these punched cards by the use of the electrical sorting and counting device. The punched cards are placed one by one, by hand, upon a rubber slab holding as many small mercury cups as there are indications on the unpunched card. Above the slab with its cups is suspended an equal number of needles, or wire points. The bottom of the mercury cups are each individually connected with a dial-hand operated by small electric magnets. The needles are individually connected on the opposite pole of the magnets. The card being placed on the rubber slab, the needles are all brought down at once by a single motion of a lever. Certain of the

needles will drop through the punched holes in the card, come into contact with the mercury in the cups, thus completing a current through the magnet which releases the hand on the dial one point.

Each time a current is made a register of one is recorded on the individual dial which corresponds to the hole in the card, which, in turn, represents age, sex, color, conjugal conditions, etc. When the digit hand on the dial has completed a count, a second hand tallies one hundred on the dial so that a computation of ten thousand may be made on each dial.

After a certain division, or bunch of cards, representing a city or county has been passed through the tabulating machine, the totals on the dials may be read off and noted on the total tables of the report.

One dial is reserved and placed in a common count which records the exact number of cards which pass through. The total, therefore, of any given item, as for instance in color, the total of black, white, and mixed must be equal to the total on the reserved dial. By this means any failure to have punched the card for these items, or failure on the part of the dial to record, is immediately noted and the card discovered by running the bunch through and noting the total for every five or ten cards passed.

Since the number of items called for in the report may number upwards of two hundred and forty, it is evident that this number of dials, each of which is about three inches square, would occupy too much space. An electric connection is therefore made with a sorting box, which consists of a certain number, say 26, all of which have a light metal cover, which is held in place by means of an electric magnet. A sort is made by counting up each cell, or box, with the items, the primary division of occupations, or of divorcees.

When the needle passes through the item hole, the contact of the needle with the mercury causes the lid, or cover, of the box to be released. A spring throws the cover wide open. The card having been on the record, is slid off by hand into the cell, or com-

partment, found open. The cover is then thrown into place, by hand, being caught by the hook on the electric magnet and from which it was released when the magnet moved. The opening of the sorting box, and the working of the one or more dials, operate at the same time.

The cards accumulating in the boxes are taken in their sorted bunches to the dial portion of the machine, and a record is made of the holes found in the sub-divisions of occupations, or diseases.

Although each card is placed and removed by hand, yet an operator quickly acquires great celerity and rapidity in the working of the machine. It will be noted that the operator does not read the cards, but the instrument does. The power for operation of the magnets is provided by about twenty-four carbon zinc cells.

When any sort, or bunch, consists of but few cards, they are more readily worked by hand. The limit of this method of sorting and counting varies with the operator. The reading is made by observation of the holes which correspond with the data as given in the original certificate, or return.

As a variation or simplification of the work of punching, a machine has been devised by Mr. Gore, of the Actuary Department of the Prudential Life Insurance Company, of Newark, N. J.

This consists of the union of cutting, or punching, rods with the key-board of a typewriter. In this instrument the cards are fed and expelled automatically to and from the punching blade. As a matter of economy, and for the purpose of having cards accurately cut that there may be no variation in size, which would lead to obstruction in the several machines through which it passes, Mr. Gore has devised a machine which will automatically cut these cards from strips of cardboard distributed from a roll. These cards are also stamped automatically with a consecutive number, and printed with the letters, or signs, representing the data to be noted.

Mr. Gore's method of sorting consists in placing bunches of the punched cards in a number of hoppers which are arranged on a circular platform, several of these circular receptacles being im-

posed one upon the other, each being free to revolve independent of the circle above and below. In each circle there are receiving compartments in which the projecting wire is inserted at a point which will correspond with the location of the hole in the card the notation of which is desired. As these circles are readily revolved by hand, or electric motor, each successive card comes in contact with these pins, and if the hole be present directly over the pin, the card will drop into its proper receptacle; if not, it continues to revolve until it finds a point, or pin, which does correspond. In this way all of one age, or different age periods, may be sorted at the same time. These pins are adjustable in sockets for any of the signs found on the cards. In this way the sorting is done with great rapidity, many thousands being separated within an hour.

Succeeding this operation, an instrument has been devised which shall receive these cards from a hopper, and automatically count and register the number of cards of any individual sort placed in a hopper. As this does away the with mistakes which are liable to accrue by lack of memory of the hand-sorter, the results are more accurate. A mistake made by the hand-sorter, of passing two cards at one time, is obviated in this counting instrument, since two cards cannot enter at the same time. Any failure to enter checks the operation of the machine.

There is on the market a hand adding machine which will record single tallies, or items, or one subject, to the number of 999, the next pressure upon the projecting lever of the machine throwing the reading dials, or rather registering wheels, over again to 000, making 1,000. These counters are used by umpires of base ball and other games, by inspectors of steamboats, and in any large assembly to tally the number of persons present.

It is a circular box of metal, about two inches in diameter, with glass center on the front, protecting the registering wheels. Each wheel may be thrown back to zero by means of thumb keys on the back. The wheels are set in motion by pressing a lever which

projects on one side. This is useful only in adding by single additions of one or two.

For the purpose of adding numbers including units, tens, thousands and upwards, a device known as the comptometer is to be found on the market. It consists of a box fourteen inches long and eight inches wide and four inches deep, containing a series of wheels, each having ten notches with a cam on each wheel at the tenth notch which will cause the neighboring wheel to advance one notch, or number. The turn of the wheel is produced by pressing upon a key button upon which is imprinted a number. There are nine digits in each vertical column of units, tens, etc. These buttons press perpendicular rods which force horizontal arms, or levers, to press against the notches on the wheel, the amount of push being governed by the length of arm or the leverage of each number. The numbers being farthest removed from the register or dial has the longest leverage. All the numbers on the dial may be brought to zero by turning a small wheel on the side of the machine.

A device for the same purpose is found in the Electrical Adding and Multiplying Machine of the Pidgin System. It differs from the previous machine by the numbers being notated by means of sliding keys instead of stiff upright keys. The keys, or arms, with pointer, are pushed up on the scale to the number to be added. All of the numbers up to a billion, being set, it is possible to read the numbers off for correction before bringing them back into place and registering on the dials.

This form of machine has the advantage of accuracy, and noiseless and easy of operation, very little effort being required to push the sliding arms into position. The only disadvantage is the necessary width of the machine. An attachment also provides for locking the machine to avoid intentional or accidental movement of the arms by some person other than the operator.

As with the Comptometer, multiplication and division and other mathematical computations may be mechanically executed with the aid of this machine.

As to the advantages of one system over the other, it may be stated that any mechanical device which will relieve the mind, the hand, and the eye from continuous routine effort will serve the avoidance of mistakes. Such devices necessarily increase rapidity of obtaining results, and it is the aim of all registrars of vital statistics to issue their reports at the earliest possible date which is consistent with completeness and accuracy of the information compiled.

The card catalogue system has the advantage of a permanent record, for reference. It has the advantage of sorting by hand, which, as has been stated, is preferable in dealing with small totals.







The perforated card system has the advantage of availability of mechanical devices which insure accuracy, but more especially rapidity. Thousands of cards may be handled in this way when hundreds are counted by hand. One great advantage that this system has is the possibility of accumulating and sorting to obtain one item, or several, covering a period of five or ten years.

The introduction of the perforated card involves one more process in the operation. The card must be punched by hand, and must be fed to the automatic counting machine.

Reading direct from the schedule, or return, and recording the count automatically by machine, brings the information direct from the return into the total and is thus a saving of time as well as an increase in accuracy. If, however, a mistake is made in recording one too many, or too few of a particular item, it is not possible to correct that except by a rereading and recount of that item for all the returns that are in the schedule.

In the use of the dials, with clock hands as indicators, it is very essential that the operator stand directly in front of each dial, for from a point diagonal from the dial, the angle at which it is viewed will give a mistaken notation. With the numerical indicator the numbers are at once evident. No counting of intermediate divisions on a dial is necessary, the total being read off at once and noted on the total sheet.

On May 18th last, a commission on the tabulation test for the next United States Census was appointed. This commission submitted to the contestants schedules representing approximately 20,000 persons which were selected from the population of the returns of the eleventh census. Individual data was to be obtained from these schedules, and to be represented in twelve tables, comprehending a distribution of the population by sex, general nativity, and color, age, conjugal condition, place of birth, parentage, illiteracy, school attendance, citizenship, occupations, and months employed.

(County)	(City or Town)	(Month)	(No.)
(Color and Race)	(Conj. Cond.)	AGE	
		(Years)	(Months)
(Res. or Non. Res.)			(Days)
Disease or Cause of Death	(Class)	(Order)	(Detail)
Occupation	(Class)	(Section)	(Detail)
Place of Birth and Parent Nativity	P B 	P NF 	PN M 
			

Massachusetts Registration : DEATHS—1887.

Jan	Feb	0	30	60	0	0	5	00	2	Br	Kt	1	7	M	Dv	A	B	C	D	
Mr	Apr	5	35	65	1	1	6	10	3	Pv	Nw	2	8	F	Wd	E	F	G	H	
My	Jun	10	40	70	2	2	7	20	4	Pl	Ws	3	9	W	Sg	I	K	L	M	
Jy	Aug	15	45	75	3	3	8	0	5	Wn	Pv	4	10	B	Mr	N	O	P	Q	
Sp	Oct	20	50	80	4	4	9	1	6	8	Nw	5	11	Mx	Un	R	Un	1	2	
Nv	Dec	25	55	85	90	Un	10	11	7	9	In	6	12	Ot		3	4	5	6	
20	14	8	2	Nu	Ol	Nv	Mi	Un	F	N	Un	F	N	Un	F	N		7	8	9
21	15	9	3	An	In	Cr	En	En	Gr	Ir	En	Gr	Ir	En	Gr	Ir		10	11	12
22	16	10	4	Ho	Ss	Rs	De	Wa	Ee	Se	Wa	Ee	Se	Wa	Ee	Se		13	14	15
23	17	11	5	Su	Dc	Dg	Pa	Nw	Fc	It	Nw	Fc	It	Nw	Fc	It		16	17	18
24	18	12	6	Un	Dw	Ur	Da	Sw	Ru	Pw	Sw	Ru	Pw	Sw	Ru	Pw		19	20	21
Ol	19	13	7	1	Dop	Gn	Tu	Un	Ot		Un	Ot		Un	Ot			22	23	24

According to the Washington Star of July 28th, "Four systems of tabulation were entered into competition: First, the Hollerith Electric Tabulating System. Second, the Automatic Multiple Counting Machine. Third, the Pin Board Electrical Tabulating System, and the Electrical Typewriter Tabulator," the latter three being entered by Mr. Pidgin, and all of which have been described in this paper.

The Star states that "the Hollerith System completed its work in 185 hours and 53 minutes when considered as the labor of one clerk. Of this total time, 135 hours and 30 minutes were consumed in transcribing the cards by punching, including 'gang-punching'; 68 hours and 38 minutes in running the punched cards through the electric counting machine, and 11 hours and 45 minutes in transferring the results to the forms of tables as submitted by the commission. Six hours and 30 minutes of the time were used for the hand sorting of certain of the smaller occupation groups.

"The Automatic Tabulating System consumed 452 hours, of

which 228 hours were occupied in transcribing (by marking) of the cards. The counting and tabulating occupied 224 hours.

"The Pin Board System was not continued through the test but was stopped by agreement, it having been demonstrated that the rapidity of this system was practically the same as that of the typewriter tabulator and the relative efficiency of the two systems could be determined by confining the test to the last named system.

"The test of the last three systems was begun on June 14th. Work was continued on the typewriter tabulator until July 27th, when it was discontinued by direction of the commission. Up to this time 163 hours had been consumed by the test and nine tables were wholly compiled.

"The tables relating to foreign percentage and occupation respectively and a part of table seven relating to age detail, had yet to be compiled."

The conclusions as reached by the commission were as follows: "As the result of the test of the several systems submitted the commission are jointly and severally of the opinion that the superiority of the Hollerith Electric Tabulating System for the compilation of individual data which is necessary to be made from the returns of the twelfth census has been clearly and fully demonstrated and they so report."

Of the very few States and cities having any system of registration, Maine, New Hampshire, and Vermont use the card catalogue system which consists of a copy of the original return placed upon individual cards by town clerks and forwarded to the State registrar. These cards are then sorted by hand, and the cards filed away as a card catalogue for future reference. As these returns are received monthly, it is possible to keep the compilation well advanced so that at the end of the year a sum total of the months will give total for the year. This system also has the advantage of making it possible to correct any ill defined causes of death, by correspondence with the physician before the end of the year.

New York City makes use of the Hollerith Tabulating Machine, the smaller numbers being counted by hand. The State of Rhode Island made use of the entire Hollerith machine for two or three years, when it was found to be more practicable to sort the punched cards by hand instead of running them through the electrical counting machine. It is found also that the cards could be punched with greater rapidity, and sorted more readily, than by using the Pidgin Card System, which requires markings with pencil.

It is a difficult matter to satisfactorily explain the workings of these various devices without having the machines at hand for demonstration, and should any registrar contemplate the use of any of them, he would naturally visit and examine the devices wherever they might be in operation.

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GENERAL LAWS.

CHAPTER 96.

OF THE STATE BOARD OF HEALTH.

SECTION 1. The governor, with the advice and consent of the senate, shall appoint six persons, two from the county of Providence, and one from each of the other counties, who shall constitute the state board of health, one of whom shall be appointed in each year for the term of six years from the first day of July. Any appointment to fill a vacancy shall be for the remainder of the term. Of the persons so appointed, at least three shall be well-educated physicians and members of some medical society incorporated by the state. The governor may remove any member, for cause, at any time, upon the written request of two-thirds of the board.

The state board of health, appointment; vacancies, how filled; removals, how made.

SEC. 2. The board shall take cognizance of the interests of life and health among the citizens of the state; they shall make investigations into the causes of disease, and especially of epidemics and endemics among the people, the sources of mortality, and the effects of localities, employments, conditions, and circumstances on the public health, and shall do all in their power to ascertain the causes and the best means for the prevention of diseases of every kind in the state. They shall publish and circulate, from time to time, such information as they may deem to be important and useful for diffusion among the people of the state, and shall investigate and give advice in relation to such subjects, relating to the public health, as may be referred to them by the general assembly, or by the governor when the general assembly is not in session.

Duties of the board, with reference to life and health among the citizens of the state.

SEC. 3. The state board of health shall also investigate the subject of diseases among cattle or other animals.

To investigate diseases among cattle, etc.

SEC. 4. The board shall meet in the city of Providence once in three months, and as much oftener as they may deem necessary. No

Meetings.

Compensation. member of the board, except the secretary, shall receive any compensation for his services ; but the actual personal expenses of any member, while engaged in the duties of the board, shall be paid by the state.

Secretary. SEC. 5. The board shall elect a well-qualified physician as their secretary, who shall be *ex-officio* a member of the board, the commissioner of public health and state registrar ; but he shall not be permitted to vote on any question in which he is personally interested.

Duties of secretary. SEC. 6. The secretary of the board shall make inquiry, from time to time, of the clerks of town and local boards of health and practicing physicians, in relation to the prevalence of any disease, or knowledge of any known or generally believed source of disease or causes of general ill-health, and also in relation to the proceedings of the said boards of health, in respect of acts for the promotion and protection of the public health, and also in relation to diseases among domestic animals in their several towns ; and the said clerks of town and local boards of health and said practicing physicians shall give information, in reply to said inquiries, of such facts and circumstances as shall have come to their knowledge.

Same subject. SEC. 7. The secretary shall perform and superintend the work prescribed for said board by law, and such other duties as the board may require ; he shall prepare and publish, in every calendar month, a general summary of all the deaths, and causes of the same, which have occurred in the state during the preceding month, the same to be made up from returns of deaths which shall be made to him on or before the tenth day of the month following the date of such deaths, by the several town clerks, the city registrar of Providence, and the city clerks of the other cities ; he shall also prepare and publish for general distribution a monthly circular giving information and advice in regard to the preservation of health, suitable for each particular season, and giving also such information as he shall deem of advantage to the public, as to the prevalence and character of infectious diseases of domestic animals. He shall hold his office during the pleasure of the board, and may be removed at any regular meeting by a majority vote of the members of said board.

Office and expense of the board. SEC. 8. The governor shall provide a suitable office for the board in the city of Providence ; and the actual expenses of the board and of the members thereof, when certified by the chairman and approved by the governor, shall be paid from the state treasury.

Sec. 9. The board shall make a report in print to the general assembly, annually, of its proceedings during the year ending on the thirty-first day of December next preceding, with such suggestions in relation to the sanitary laws and interests of the state as they shall deem important.

To report annually

CHAPTER 165.

OF THE PRACTICE OF MEDICINE.

[As amended November, 1901.]

SECTION 1. It shall be the duty of each town and city clerk to purchase a book of suitable size, to be known as the "medical register" of each city or town, and to set apart one full page for the registration of each physician; and when any physician shall die or remove from the city or town, said clerk shall make a note of the same at the bottom of the page, and shall on the first day of January in each year transmit to the office of the state board of health a duly-certified list of the physicians of said city or town registered under this chapter, together with such other information as is hereinafter required, and perform such other duties as are required by this chapter; and such clerk shall receive the sum of fifty cents from each physician so registered, which shall be his full compensation for all the duties required under this chapter.

Register of physicians to be kept by city and town clerks.

Annual list to state board of health.

Compensation.

Sec. 2. It shall be unlawful for any person to practice medicine or surgery in any of its branches, within the limits of this state, who has not exhibited and registered, in the city or town clerk's office of the city or town in which he or she resides, his or her authority for so practicing medicine as herein prescribed, together with his or her age, address, place of birth, and the school or system of medicine to which he or she proposes to belong; and the person so registering shall subscribe and verify by oath, before such clerk, an affidavit containing such facts, which, if wilfully false, shall subject the affiant to conviction and punishment for perjury.

Practice of medicine is unlawful without registration of certificate of authority.

Sec. 3. Authority to practice medicine under this chapter shall be a certificate from the state board of health, and said board shall, upon application, after examination, issue a certificate to any reputable physician who intends to practice medicine or surgery in this

Certificate of authority and examination by board

state and who shall present himself before the state board of health and pass in a satisfactory manner such examination as said board may require. Any physician so presenting himself shall pay to said board the sum of ten dollars (\$10) for each examination, and said fee shall in no case be returned, but shall be applied to pay the expenses of said board of health in conducting such examinations. Each certificate so issued shall be signed by the president and countersigned by the secretary of said board and shall be attested by the official seal, and not more than two dollars (\$2) shall be charged for a certificate.

Fee.

Certificate to be how signed; fee therefor.

Itinerant doctors are precluded.

Certificates may be refused or be revoked, when.

Board may administer oaths, summon witnesses, and compel production of books and papers.

Contempt, how punished.

Perjury.

SEC. 4. Nothing in this chapter shall be so construed as to authorize any itinerant doctor to register or to practice medicine in any part of this state.

SEC. 5. The board may, after due notice and hearing, in its discretion refuse to grant the certificate provided for in section 3 of this chapter to any physician who is not of good moral character, or who has violated any of the laws of the state, or who has been guilty of gross unprofessional conduct or conduct of a character likely to deceive or defraud the public, and may, after due notice and hearing, revoke any certificate issued or granted by it heretofore for like cause or for any fraud or deception committed in obtaining such certificate, or for any other cause which in the opinion of said board shall render the holder of such certificate an unfit person to practice medicine in this state. The members of said board are hereby severally authorized to administer oaths, and said board, in all cases or proceedings pending before it, is hereby authorized and empowered to summon witnesses by subpœna signed by the secretary of said board, and to compel such witnesses to attend and testify in the same manner as witnesses are compelled to appear and testify in either division of the supreme court; and said board is authorized to compel the production of all papers, books, documents, records, certificates, or other legal evidence that may be necessary or proper for the determination and decision of any question or the discharge of any duty required by law of said board, by issuing a subpœna *duces tecum*, signed by the secretary; and every person disobeying any such writ shall be considered as in contempt, and said board may punish any contempt of its authority in like manner as contempt may be punished by either division of the supreme court. Any person who shall wilfully swear falsely in any proceeding, matter, or hearing before said board shall be deemed guilty of the crime

of perjury. Said board shall serve a copy of its decision or ruling upon any person whose certificate has been refused or revoked. Any person aggrieved by any decision or ruling of said board may, within ten days after receiving said notice, exclusive of Sundays and legal holidays, take an appeal therefrom to the appellate division of the supreme court, sitting at Providence, and shall file therein his reasons of appeal, and serve a copy thereof on the secretary, or person performing the duties of secretary, of said board; and said appellate division of the supreme court shall, as soon as may be, hear and determine said appeal.

Appeals.

SEC. 6. Nothing in this law shall be so construed as to discriminate against any particular school or system of medicine, or to prohibit gratuitous services in case of emergency; nor shall this chapter apply to commissioned surgeons of the United States army, navy, or marine hospital service, or to legally qualified physicians of another state, called to see a particular case, in consultation with a registered physician of this state, but who do not open an office or appoint any place in this state where they may meet patients or receive calls.

To whom this chapter does not apply.

SEC. 7. Complaints for violation of the provisions of this chapter shall be made by the secretary of said board, and said secretary shall be exempt from giving surety for costs on any complaint made as aforesaid.

Prosecutions, secretary of state board of health not required to give surety for costs.

SEC. 8. Any person who, not being then lawfully authorized to practice medicine within this state, and so registered according to law, shall practice medicine or surgery or attempt to practice medicine or surgery, or any of the branches of medicine or surgery, after having received therefor or with the intent of receiving therefor, either directly or indirectly, any bonus, gift, or compensation, or who shall open an office with intent to practice medicine, or shall hold himself out to the public as a practitioner of medicine, whether by appending to his name the title of doctor or any abbreviation thereof, or M. D., or any other title or designation implying a practitioner of medicine, or in any other way, shall be deemed guilty of a misdemeanor, and upon conviction thereof shall be fined fifty dollars, and upon each and every subsequent conviction shall be fined one hundred dollars and imprisoned thirty days, either or both, in the discretion of the court; and in no case when any provision of this chapter has been violated shall the person so violating such provision be entitled to receive compensation for services rendered.

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FORTY-SIXTH REPORT

RELATING TO THE

REGISTRY AND RETURN

OF

Births, Marriages, and Deaths,

AND OF DIVORCE,

IN THE

STATE OF RHODE ISLAND,

FOR THE

YEAR ENDING DECEMBER 31, 1898.

PREPARED BY

GARDNER T. SWARTS, M. D.,

STATE REGISTRAR OF VITAL STATISTICS; SECRETARY OF THE STATE BOARD OF HEALTH;
COMMISSIONER OF PUBLIC HEALTH.

PROVIDENCE:

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1900.

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GARDNER T. SWARTS, *Secretary.*

State of Rhode Island and Providence Plantations.

OFFICE OF THE STATE REGISTRAR OF VITAL STATISTICS.

PROVIDENCE, R. I., March 1, 1900.

To the Honorable General Assembly:

The Forty-Sixth Annual Report upon the Registration of Births, Marriages, and Deaths in Rhode Island, and including judicial procedures in relation to divorce, during the year 1898, with compendary Tables of the results of registration in the previous years, is herewith respectfully submitted.

The plan of preceding years, in regard to the general arrangement of the Tables, summaries, and comments, has been followed in this report, with some additional Tables, and a few special changes made to meet certain requirements.

In the special Tables the object has been to present the important facts of many years of registration, as well as of single years, in such manner as to make them readily apparent and relieve the reader of the statistics of much of the labor of personal examination of each of the general Tables of the preceding reports for the purpose of ascertaining the relation the various facts bear to each other.

In previous reports the proportion of births, marriages, and deaths to the population has been estimated in various ways. For a few years the estimation was made upon the figures derived from the census taken in a given year, and the same number of population used each year until the next census was available. In other periods an estimate was made upon an arithmetical increase. The present issue, however, gives all estimates in proportion to population by geometrical ratio, and which gives a more rational uniform increase than has been previously observed. This is seen in Table XVI.

The same form of nomenclature and classification that was introduced into the previous issue has been retained, since it is believed that it conforms more correctly to the present understood ætiology of disease.

Changes have therefore been made which may seem arbitrary, but are surely more satisfactory as a classification than that previously used.

Under the class of Zymotic Diseases we have previously had Miasmatic Diseases as Order, or Group, One ; and Enthetic Diseases as Order, or Group, Two. As the word Miasmatic is inappropriate at the present day to such diseases as diphtheria, measles, and scarlet fever, and as these are, with many other, dependent upon the introduction into the system of a morbid material, they are, therefore, contagious or infectious. As some controversy is liable to arise as to the preference in use of either of these terms, it has been thought desirable to use the word Communicable, which will include both. In this group have been gathered all diseases acknowledged to be dependent upon the presence of some morbid entity which in some instances has been demonstrated to be due to a micro-organism, while with others it is assumed by analogy to these conditions that they may be due to the same cause.

A more extended explanation of the reclassification of these diseases will be found under Names of Causes of Death, in Appendix A, page 283, of this report.

Respectfully,

GARDNER T. SWARTS,

State Registrar.

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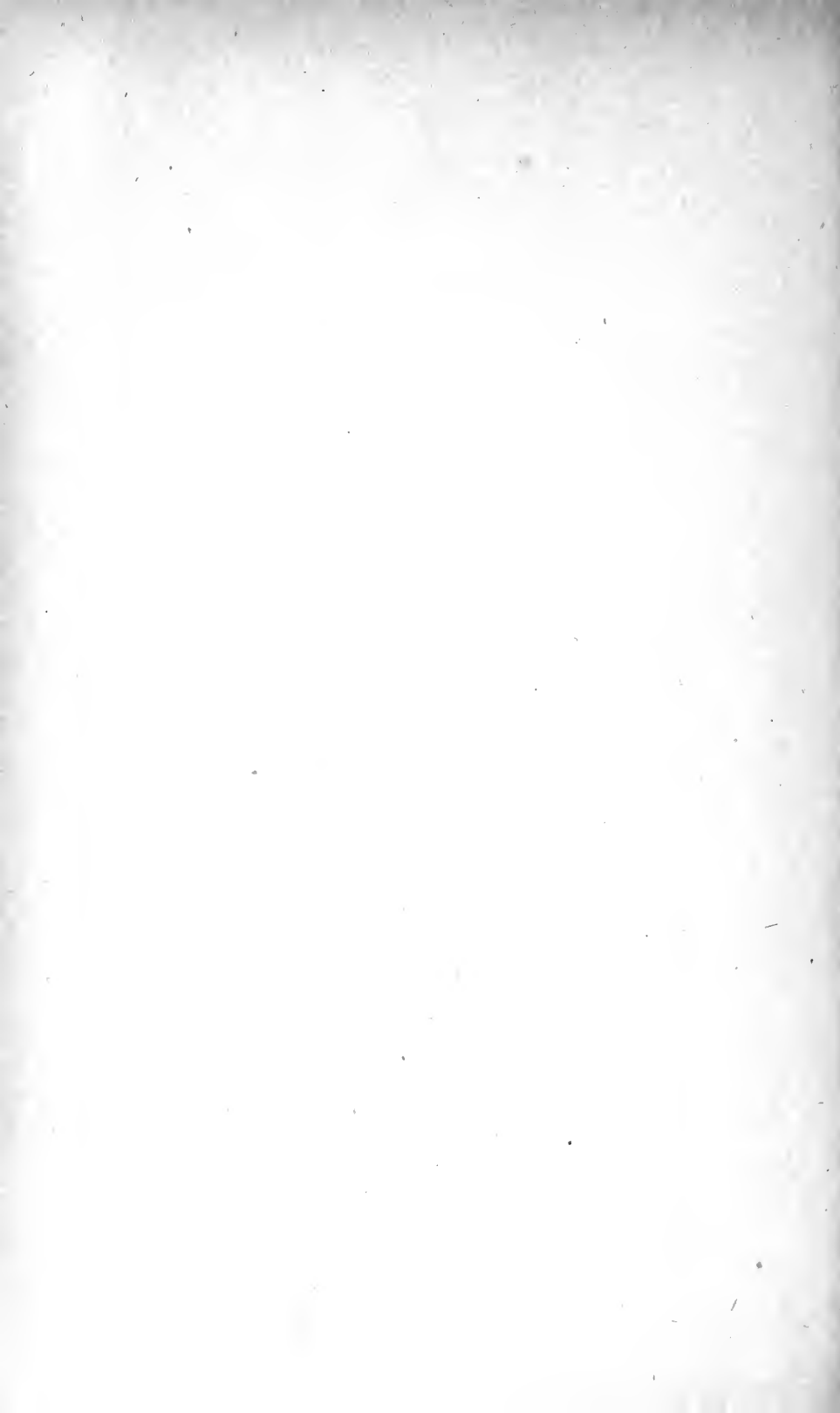
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REPORT UPON THE REGISTRATION

OF

BIRTHS, MARRIAGES, AND DEATHS

IN

RHODE ISLAND,

FOR

THE YEAR ENDING DECEMBER 31, 1898,

AND

FOR VARIOUS YEARS FROM 1853 TO 1898,

INCLUSIVE.

TABLE I.

General Summary of Births and Marriages in the State of Rhode Island during the year 1898.

TOWNS AND DIVISIONS OF THE STATE.	BIRTHS.							MARRIAGES.				
	Whole Number.	SEX.		PARENTAGE.				Whole Number.	NATIVITY.			
		Males.	Females.	Native.	Foreign.	Native Father Foreign Mother.	Foreign Father. Native Mother.		Native.	Foreign.	Native Groom. Foreign Bride.	Foreign Groom. Native Bride.
Barrington.....	33	11	22	15	13	3	2	11	7	3	.....	1
Bristol.....	138	73	65	61	42	19	16	40	14	14	9	3
Warren.....	139	68	71	27	86	15	11	36	15	13	6	2
BRISTOL COUNTY.....	310	152	158	103	141	37	29	87	36	30	15	6
Coventry.....	137	77	60	57	58	10	12	18	16	1	.....	1
East Greenwich.....	39	23	16	14	15	5	5	31	14	7	6	4
West Greenwich.....	7	3	4	7	.....	.....	.....	.....	.....	.....	.....	.....
Warwick.....	798	398	400	190	445	95	68	156	64	61	15	16
KENT COUNTY.....	981	501	480	268	518	110	85	205	94	69	21	21
Jamestown.....	20	10	10	12	5	2	1	2	2	.....	.....	.....
Little Compton.....	17	12	5	12	3	2	.....	7	6	1	.....	.....
Middletown.....	25	12	13	11	12	.....	2	3	3	.....	.....	.....
NEWPORT CITY.....	577	257	290	207	253	52	65	150	87	42	14	7
New Shoreham.....	20	9	11	18	1	1	.....	10	9	.....	.....	1
Portsmouth.....	36	14	22	18	16	1	1	6	5	1	.....	.....
Tiverton.....	35	19	16	19	10	4	2	11	6	4	1	.....
NEWPORT COUNTY.....	730	363	367	297	300	62	71	189	118	48	15	8
Burrillville.....	167	79	88	55	77	20	15	32	18	4	4	6
CENTRAL FALLS.....	563	291	272	93	358	52	60	148	33	65	29	21
Cranston*.....	227	114	113	98	91	13	25	69	39	14	7	9
Cumberland.....	238	106	132	57	117	31	33	62	18	25	10	9
East Providence.....	232	123	109	117	71	21	23	74	48	16	6	4
Foster.....	21	13	8	19	.....	.....	2	15	15	.....	.....	.....
Glocester.....	23	9	14	18	2	2	1	7	7	.....	.....	.....
Johnston.....	197	108	89	41	117	23	16	17	6	5	4	2
Lincoln.....	221	111	110	18	163	19	21	63	10	32	10	11
North Providence.....	67	42	25	21	36	6	4	4	2	1	.....	1
North Smithfield.....	81	35	46	20	48	5	8	19	2	4	11	2
PAWTUCKET.....	1,067	524	543	355	496	103	113	270	116	82	37	35
PROVIDENCE CITY.....	4,256	2,182	2,074	1,312	2,185	386	373	1,566	694	512	181	179
Scituate.....	58	26	32	49	7	1	1	25	19	2	3	1
Smithfield.....	38	22	16	18	14	4	2	11	7	2	1	1
WOONSOCKET.....	808	417	391	151	484	82	91	228	89	73	31	35
PROVIDENCE COUNTY.....	8,264	4,202	4,062	2,442	4,366	768	788	2,610	1,123	837	334	316
Charlestown.....	16	4	12	13	2	1	.....	7	7	.....	.....	.....
Exeter.....	10	6	4	10	.....	.....	.....	15	14	.....	.....	1
Hopkinton.....	47	20	27	41	2	2	2	25	21	.....	1	3
Narragansett.....	23	14	9	17	2	4	.....	4	4	.....	.....	.....
North Kingstown.....	74	42	32	55	8	8	3	26	24	1	.....	1
South Kingstown.....	113	53	60	93	4	14	2	31	28	.....	2	1
Richmond.....	17	13	4	14	2	.....	1	8	8	.....	.....	.....
Westerly.....	145	73	72	60	62	8	15	71	45	6	14	6
WASHINGTON COUNTY.....	445	225	220	303	82	37	23	187	151	7	17	12

* State institutions not included.

TABLE I.—Continued.

General Summary of Deaths in the State of Rhode Island during the year 1898.

Whole Number.	SEX.		NATIVITY.		AGES GIVEN.		AGGREGATE AGE IN YEARS.		AVERAGE AGE IN YEARS.		Aggregate Ages.	Average Age.
	Males.	Females.	Native.	Foreign.	Males.	Females.	Males.	Females.	Males.	Females.		
19	8	11	15	4	7	11	366	503	52.29	45.73	869	48.28
109	53	56	85	24	53	56	2,400	2,366	45.28	42.25	4,766	43.72
84	38	46	59	25	38	46	1,921	1,603	32.13	31.85	2,824	33.62
212	99	113	159	53	98	113	3,987	4,472	40.68	39.58	8,459	40.09
81	45	36	69	12	45	36	1,732	1,398	38.49	36.32	3,010	37.53
53	24	29	40	13	24	29	1,212	1,260	50.50	43.45	2,472	46.64
9	6	3	9	.....	6	3	363	221	60.50	73.67	584	61.89
373	183	190	279	94	183	189	5,715	5,951	31.23	26.72	10,766	38.91
516	258	258	397	119	258	257	9,022	7,840	34.97	30.51	16,862	32.74
12	7	5	11	1	7	5	333	294	47.57	58.80	627	52.25
17	9	8	17	.....	9	8	310	431	37.78	53.88	741	45.35
15	10	5	15	.....	10	5	476	319	47.60	63.80	795	53.00
349	169	180	274	75	169	179	6,382	6,754	37.76	37.73	13,136	37.75
17	13	4	15	2	13	4	698	292	53.69	50.50	990	52.91
28	16	12	23	5	16	12	842	575	52.63	47.92	1,417	48.56
56	36	20	48	8	35	20	1,174	646	33.54	32.30	1,820	33.09
494	260	234	403	91	259	233	10,245	9,221	39.56	39.58	19,166	39.57
95	46	49	74	21	46	49	1,730	1,470	37.39	30.00	3,190	33.56
218	118	100	147	71	118	100	3,144	2,692	26.64	26.02	5,746	26.36
172	89	83	144	28	89	83	2,799	3,646	31.44	33.93	6,445	37.47
146	72	74	97	49	72	73	2,592	2,672	31.75	36.60	5,174	35.68
123	64	59	98	25	64	59	3,292	2,769	35.81	36.76	4,461	36.27
17	12	5	16	1	12	5	482	260	40.17	52.00	742	43.65
27	10	17	25	2	10	17	443	1,126	41.30	66.24	1,569	58.11
130	70	60	88	42	70	60	2,471	2,050	35.30	31.17	4,521	34.78
115	54	61	64	51	54	61	1,564	2,028	28.96	33.25	3,592	31.23
35	18	17	24	11	17	17	543	917	31.91	55.71	1,490	43.82
52	42	10	36	16	42	10	1,421	483	33.90	48.30	1,907	36.67
543	280	263	339	204	280	263	9,965	9,615	35.59	36.67	19,610	36.11
2,929	1,489	1,440	2,032	897	1,489	1,440	46,636	50,553	31.32	35.11	97,189	33.18
53	22	31	46	7	22	31	1,240	1,322	56.36	42.65	2,562	48.31
31	19	12	28	3	19	12	542	601	28.53	50.33	1,146	36.97
458	235	223	317	141	235	223	5,513	6,080	29.46	27.26	11,593	29.31
5,144	2,610	2,504	3,575	1,569	2,639	2,503	83,280	87,657	31.56	35.02	170,937	33.24
15	7	8	13	2	7	8	407	302	58.14	37.75	709	47.27
13	6	7	12	1	6	7	426	305	71.00	57.86	831	63.92
49	26	23	48	1	26	23	1,368	1,299	52.62	56.48	2,667	54.43
13	5	8	12	1	5	8	188	443	37.60	55.38	631	48.51
63	32	31	57	6	32	31	1,842	1,571	57.56	50.68	3,413	51.17
83	40	43	79	4	40	43	1,975	2,210	49.37	51.40	4,185	50.32
24	12	12	24	3	12	12	718	472	59.83	39.33	1,190	49.58
109	63	46	82	27	63	46	2,811	2,107	44.62	45.80	4,918	45.12
369	191	178	324	45	191	178	9,735	8,809	50.97	49.19	18,544	50.25

TABLE I.—Continued.—RECAPITULATION.

General Summary of Births and Marriages in the State of Rhode Island during the year 1898.

COUNTIES.	BIRTHS.							MARRIAGES.				
	Whole Number.	SEX.		PARENTAGE.				Whole Number.	NATIVITY.			
		Males.	Females.	Native.	Foreign.	Native Father. Foreign Mother.	Foreign Father. Native Mother.		Native.	Foreign.	Native Groom. Foreign Bride.	Foreign Groom. Native Bride.
BRISTOL	310	152	158	103	141	37	29	87	36	30	15	6
KENT	981	501	480	268	518	110	85	205	94	69	21	21
NEWPORT	730	363	367	297	360	62	71	189	118	48	15	8
PROVIDENCE	8,264	4,202	4,062	2,442	4,266	768	788	2,610	1,123	837	334	316
WASHINGTON	445	225	220	303	82	37	23	187	151	7	17	12
STATE INSTITUTIONS												
WHOLE STATE	10,730	5,443	5,287	3,413	5,307	1,014	996	3,278	1,522	991	402	363

TABLE I.—Continued.—RECAPITULATION.

General Summary of Deaths in the State of Rhode Island, by Counties, during the year 1898.

DEATHS.												
Whole Number.	SEX.		NATIVITY.		AGES GIVEN.		AGGREGATE AGE IN YEARS.		AVERAGE AGE IN YEARS.		Aggregate Ages.	Average Age.
	Males.	Females.	Native.	Foreign.	Males.	Females.	Males.	Females.	Males.	Females.		
212	99	113	159	53	98	113	3,987	4,472	40.68	39.58	8,459	40.09
516	258	258	397	119	258	257	9,022	7,840	34.97	30.51	16,862	32.74
494	260	234	403	91	259	233	10,245	9,221	39.56	39.58	19,466	39.57
5,144	2,640	2,504	3,575	1,569	2,639	2,503	83,280	87,657	31.56	35.02	170,937	33.24
369	191	178	324	45	191	178	9,735	8,809	50.97	49.49	18,544	50.25
170	106	64	99	71	106	64	5,689	3,651	53.67	57.05	9,340	54.94
6,905	3,554	3,351	4,957	1,948	3,551	3,348	121,958	121,650	31.34	36.34	243,608	35.31

TABLE II.—BIRTHS, 1898.

Arranged by Months, Sexes, and Divisions of the State.

MONTHS.	SEX.	DIVISIONS OF THE STATE.										
		Whole State.	Bristol County.	Kent County.	Newport County Towns.	Newport City.	Providence County Towns.	Central Falls.	Pawtucket.	Providence City.	Woonsocket.	Washington County.
January.....	Males.....	484	15	36	10	41	68	31	54	178	41	10
	Females...	453	10	48	6	39	67	18	41	175	34	15
	Total.....	937	25	84	16	80	135	49	95	353	75	25
February.....	Males.....	437	14	57	4	23	55	21	43	168	38	14
	Females...	408	11	34	7	15	64	24	38	163	33	19
	Total.....	845	25	91	11	38	119	45	81	331	71	33
March.....	Males.....	461	17	32	12	19	98	26	38	163	32	24
	Females...	443	10	39	1	19	82	19	47	175	30	21
	Total.....	904	27	71	13	38	180	45	85	338	62	45
April.....	Males.....	415	17	38	1	15	68	23	53	150	32	18
	Females...	371	8	22	8	19	60	19	35	167	17	16
	Total.....	786	25	60	9	34	128	42	88	317	49	34
May.....	Males.....	446	14	41	4	21	83	21	31	177	37	17
	Females...	452	13	48	7	16	78	22	49	165	29	25
	Total.....	898	27	89	11	37	161	43	80	342	66	42
June.....	Males.....	435	10	47	4	12	63	21	42	182	36	18
	Females...	443	11	42	4	26	65	29	47	163	36	20
	Total.....	878	21	89	8	38	128	50	89	345	72	38
July.....	Males.....	503	11	39	8	23	82	20	37	225	33	25
	Females...	475	13	39	9	33	80	21	37	194	33	16
	Total.....	978	24	78	17	56	162	41	74	419	66	41

TABLE II.—BIRTHS.—Continued.

Arranged by Months, Sexes, and Divisions of the State.

MONTHS.	SEX.	Whole State.	DIVISIONS OF THE STATE.									
			Bristol County.	Kent County.	Newport County Towns.	Newport City.	Providence County Towns.	Central Falls.	Pawtucket.	Providence City.	Woonsocket.	Washington County.
August.....	Males.....	512	15	41	9	34	64	30	48	201	53	17
	Females...	467	15	37	11	21	51	33	48	188	34	29
	Total.....	979	30	78	20	55	115	63	96	389	87	46
September....	Males.....	405	5	44	8	19	67	21	40	153	25	23
	Females...	440	20	38	7	25	61	19	46	168	36	20
	Total.....	845	25	82	15	44	128	40	86	321	61	43
October.....	Males.....	457	15	33	6	28	45	32	46	193	40	19
	Females...	444	16	44	6	25	57	20	56	169	35	16
	Total.....	901	31	77	12	53	102	52	102	362	75	35
November....	Males.....	423	5	49	6	16	46	23	42	182	28	26
	Females...	430	13	39	6	23	62	19	45	180	31	12
	Total.....	853	18	88	12	39	108	42	87	362	59	38
December....	Males.....	465	14	44	4	36	49	22	50	210	22	14
	Females...	461	18	50	5	29	55	29	54	167	43	11
	Total.....	926	32	94	9	65	104	51	104	377	65	25
Whole Year...	Males.....	5,443	152	501	76	287	788	291	524	2,182	417	225
	Females...	5,287	158	480	77	290	782	272	543	2,074	391	220
	Total.....	10,730	310	981	153	577	1,570	563	1,067	4,256	808	445

TABLE IV.—MARRIAGES, 1898.

Arranged by Months and Divisions of the State.

MONTHS.	DIVISIONS OF THE STATE.																	
	Whole State, 1898.	Bristol County.		Kent County.		Newport County Towns.		Newport City.		Providence County Towns.		Central Falls.		Pawtucket.	Providence City.	Woonsocket.	Washington County.	Whole State, 1897.
January.....	267	7	16	4	16	27	12	23	131	19	12							253
February.....	256	9	15	1	11	31	13	21	117	27	11							210
March.....	152	2	10	3	4	19	3	10	73	9	19							162
First Quarter.....	675	18	41	8	31	77	28	54	321	55	42							625
April.....	321	9	19	3	19	46	16	14	150	21	24							239
May.....	201	6	11	5	7	21	8	19	98	15	11							212
June.....	396	8	25	4	17	41	25	44	186	27	19							421
Second Quarter.....	918	23	55	12	43	108	49	77	434	63	54							872
July.....	186	8	12	0	9	22	12	5	95	14	9							195
August.....	231	4	21	3	9	31	11	20	106	19	7							221
September.....	332	9	19	6	16	44	11	25	157	26	19							314
Third Quarter.....	749	21	52	9	34	97	34	50	358	59	35							730
October.....	342	7	25	2	9	42	14	34	167	26	16							321
November.....	384	15	20	6	22	48	15	38	183	18	19							377
December.....	210	3	12	2	11	26	8	17	103	7	21							212
Fourth Quarter.....	936	25	57	10	42	116	37	89	453	51	56							910
Whole Year.....	3,278	87	205	39	150	398	148	270	1,566	228	187							3,137

TABLE V.—DEATHS, 1898.

Arranged by Months, Sexes, and Divisions of the State.

MONTHS.	SEX.	Whole State.	DIVISIONS OF THE STATE.										
			Bristol County.	Kent County.	Newport County Towns.	Newport City.	Providence County Towns.	Central Falls.	Pawtucket.	Providence City.	Woonsocket.	Washington County.	State Institutions.
January.	Males	287	6	17	6	10	49	11	28	112	18	21	9
	Females.	253	9	21	4	10	50	5	18	105	7	18	6
	Total.	540	15	38	10	20	99	16	46	217	25	39	15
February.	Males	263	7	16	8	9	49	10	17	108	25	8	6
	Females.	242	4	18	1	18	41	4	13	105	16	15	7
	Total.	505	11	34	9	27	90	14	30	213	41	23	13
March.	Males	315	14	12	11	14	47	13	26	129	22	21	6
	Females.	267	10	19	9	12	42	6	16	113	22	14	4
	Total.	582	24	31	20	26	89	19	42	242	44	35	10
April.	Males	307	5	26	6	9	50	14	28	129	18	12	10
	Females.	269	9	26	5	12	46	13	24	96	26	10	2
	Total.	576	14	52	11	21	96	27	52	225	44	22	12
May.	Males	281	12	23	9	6	35	7	15	129	24	8	13
	Females.	287	15	23	2	22	35	14	23	117	19	12	5
	Total.	568	27	46	11	28	70	21	38	246	43	20	18
June.	Males	280	15	17	1	15	36	10	29	115	14	20	8
	Females.	219	10	12	2	22	25	3	18	94	13	15	5
	Total.	499	25	29	3	37	61	13	47	209	27	35	13
July	Males	295	7	20	5	18	31	9	30	130	21	18	6
	Females.	300	12	20	3	9	36	10	28	148	17	15	2
	Total.	595	19	40	8	27	67	19	58	278	38	33	8

TABLE V.—DEATHS.—Continued.

Arranged by Months, Sexes, and Divisions of the State.

MONTHS.	SEX.	DIVISIONS OF THE STATE.											
		Whole State.	Bristol County.	Kent County.	Newport County Towns.	Newport City.	Providence County Towns.	Central Falls.	Pawtucket	Providence City.	Woonsocket.	Washington County.	State Institutions.
August.....	Males.....	372	3	38	13	21	58	11	21	144	34	18	11
	Females....	358	5	31	3	17	52	20	27	150	29	16	8
	Total.....	730	8	69	16	38	110	31	48	294	63	34	19
September....	Males.....	348	12	38	6	19	52	14	22	147	16	15	7
	Females....	325	13	30	8	15	48	10	19	135	23	16	8
	Total.....	673	25	68	14	34	100	24	41	282	39	31	15
October.....	Males.....	258	3	22	8	13	40	6	20	106	12	24	4
	Females....	285	8	18	7	13	39	8	32	114	20	19	7
	Total.....	543	11	40	15	26	79	14	52	220	32	43	11
November....	Males.....	256	9	14	9	18	31	4	27	106	16	9	13
	Females....	253	11	20	3	9	26	3	18	125	20	12	6
	Total.....	509	20	34	12	27	57	7	45	231	36	21	19
December....	Males.....	292	6	15	9	17	40	9	17	134	15	17	13
	Females....	293	7	20	7	21	38	4	27	138	11	16	4
	Total.....	585	13	35	16	38	78	13	44	272	26	33	17
Whole Year...	Males.....	3,554	99	258	91	169	518	118	280	1,489	235	191	106
	Females....	3,351	113	258	51	180	478	100	263	1,440	223	178	64
	Total.....	6,905	212	516	145	349	996	218	543	2,929	458	369	170

TABLE VI.—DEATHS, 1898.

Exhibiting the Whole Number, the Proportion to Population, and Number of each Sex, in every Town and Division of the State.

TOWNS AND DIVISIONS OF THE STATE.	Total Deaths.	Population, 1898.*	Deaths per 1,000 of population.	DEATHS.	
				SEX.	Number of each Sex.
Barrington.....	19	1,755	10.8	Males.....	8
				Females.....	11
Bristol.....	109	7,039	15.5	Males.....	53
				Females.....	56
Warren.....	84	5,301	15.8	Males.....	38
				Females.....	46
BRISTOL COUNTY.....	212	14,095	15.0	Males.....	99
				Females.....	113
Coventry.....	81	5,102	15.9	Males.....	45
				Females.....	36
East Greenwich.....	53	3,216	16.5	Males.....	24
				Females.....	29
West Greenwich.....	9	675	13.3	Males.....	6
				Females.....	3
Warwick.....	373	24,143	15.4	Males.....	183
				Females.....	190
KENT COUNTY.....	516	33,136	15.6	Males.....	258
				Females.....	258
Jamestown.....	12	930	12.9	Males.....	7
				Females.....	5
Little Compton.....	17	1,128	15.1	Males.....	9
				Females.....	8
Middletown.....	15	1,494	10.0	Males.....	10
				Females.....	5
NEWPORT CITY.....	349	22,116	15.8	Males.....	169
				Females.....	180
New Shoreham.....	17	1,307	13.0	Males.....	13
				Females.....	4
Portsmouth.....	28	1,780	15.7	Males.....	16
				Females.....	12

* Geometrically estimated.

TABLE VI.—DEATHS, 1898.—Continued.

Exhibiting the Number of Deaths in each Period of Life, in every Town and Division of the State.

Under 1 year.	PERIODS OF LIFE.														Age not stated.	
	1 to 2.	2 to 3.	3 to 4.	4 to 5.	5 to 10.	10 to 15.	15 to 20.	20 to 30.	30 to 40.	40 to 50.	50 to 60.	60 to 70.	70 to 80.	80 to 90.		90 and over.
.....	.....	.....	.....	.....	1	.....	.....	1	.....	1	.....	2	1	1	.....	1
1	.....	.....	.....	.....	.....	.....	.....	1	1	2	3	3	.....	.....	.....	.....
12	1	.....	.....	.....	.....	1	2	.....	1	4	8	14	5	4	1	.....
9	2	.....	.....	.....	.....	1	2	3	6	9	7	8	3	5	1	.....
13	2	2	.....	.....	.....	.....	.....	3	1	3	3	5	4	2	.....	.....
12	4	.....	1	.....	.....	.....	2	5	4	.....	3	5	5	5	.....	.....
25	3	2	.....	.....	1	1	2	4	2	8	11	21	10	7	1	1
22	6	.....	1	.....	.....	1	4	9	11	11	13	16	8	10	1	.....
14	.....	1	1	1	.....	.....	1	3	2	1	2	10	2	6	1	.....
9	1	1	.....	.....	.....	1	1	2	4	1	4	8	3	1	.....	.....
3	1	.....	.....	.....	.....	.....	1	2	2	2	2	1	8	2	.....	.....
4	1	1	.....	1	.....	.....	2	3	.....	3	3	3	4	4	.....	.....
.....	.....	.....	1	.....	.....	.....	.....	.....	1	.....	.....	.....	1	3	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	1	1	.....	.....
60	13	8	1	.....	5	1	4	7	6	13	10	19	27	9	.....	.....
65	12	3	3	2	7	2	6	14	14	8	18	10	17	7	1	1
77	14	9	3	1	5	1	6	12	11	16	14	30	38	20	1	.....
78	14	5	3	3	7	3	9	19	18	12	25	22	25	13	1	1
.....	.....	.....	.....	.....	.....	1	.....	1	1	1	1	.....	.....	2	.....	.....
1	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	1	.....	.....	2	.....	.....
1	1	1	.....	.....	1	.....	.....	.....	1	.....	.....	1	2	1	.....	.....
.....	.....	.....	.....	.....	1	.....	.....	1	.....	1	2	.....	2	1	.....	.....
1	1	.....	.....	.....	.....	1	1	.....	.....	1	.....	.....	1	3	1	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	1	1	2	.....	.....	.....
32	8	1	3	.....	6	1	3	10	22	16	21	17	20	8	1	.....
40	9	3	3	3	2	2	4	9	13	17	17	24	16	14	3	1
.....	.....	.....	.....	.....	.....	.....	1	.....	3	3	1	.....	3	1	1	.....
.....	.....	.....	.....	.....	.....	.....	.....	1	1	.....	.....	1	1	.....	.....	.....
2	.....	.....	.....	.....	.....	.....	.....	3	1	1	1	.....	5	3	.....	.....
.....	.....	1	.....	.....	.....	.....	.....	3	1	.....	2	1	4	.....	.....	.....

TABLE VI.—DEATHS, 1898.—Continued.

Exhibiting the Whole Number, the Proportion to Population, and Number of each Sex, in every Town and Division of the State.

TOWNS AND DIVISIONS OF THE STATE.	Total Deaths.	Population, 1898.*	Deaths per 1,000 of population.	DEATHS.	
				SEX.	Number of each Sex.
Tiverton	56	3,038	18.4	Males	36
				Females	20
NEWPORT COUNTY.....	494	31,793	15.5	Males	260
				Females	234
Burrillville.....	95	5,830	16.3	Males	46
				Females	49
CENTRAL FALLS.....	218	17,462	12.5	Males	118
				Females	100
Cranston.....	172	10,284	16.7	Males	89
				Females	83
Cumberland.....	146	8,932	16.3	Males	72
				Females	74
East Providence.....	123	11,432	10.8	Males	64
				Females	59
Foster	17	1,129	15.1	Males	12
				Females	5
Glocester	27	1,549	17.4	Males	10
				Females	17
Johnston.....	130	12,529	10.4	Males	70
				Females	60
Lincoln.....	115	9,213	12.5	Males	54
				Females	61
North Providence.....	35	2,820	12.4	Males	18
				Females	17
North Smithfield.....	52	2,743	18.9	Males	42
				Females	10
PAWTUCKET	543	36,088	15.0	Males	280
				Females	263
PROVIDENCE CITY.....	2,929	154,333	19.0	Males	1,489
				Females	1,440

* Geometrically estimated.

TABLE VI.—DEATHS, 1898.—Continued.

Exhibiting the Number of Deaths in each Period of Life, in every Town and Division of the State.

Under 1 year.	PERIODS OF LIFE.															
	1 to 2.	2 to 3.	3 to 4.	4 to 5.	5 to 10.	10 to 15.	15 to 20.	20 to 30.	30 to 40.	40 to 50.	50 to 60.	60 to 70.	70 to 80.	80 to 90.	90 and over. Age not stated.	
14	.....	.....	1	1	.....	.....	.....	1	2	3	3	2	6	1	1	1
7	.....	1	.....	.....	.....	1	.....	1	2	.....	3	2	1	2	.....	.....
50	10	2	4	1	7	3	5	15	30	25	27	20	37	19	4	1
45	9	5	3	3	3	3	4	15	17	19	26	30	26	19	3	1
13	2	.....	.....	.....	2	1	.....	2	3	1	4	2	7	2	1	.....
12	2	1	4	1	3	3	1	3	2	.....	3	4	4	5	1	.....
39	3	1	4	3	6	5	1	7	6	7	13	17	2	4	.....	.....
30	7	6	4	3	2	2	1	5	2	2	5	11	4	4	.....	.....
31	4	2	.....	.....	2	2	4	6	3	3	5	10	11	5	1	.....
15	.....	2	.....	1	.....	1	1	9	6	7	9	13	9	2	2	.....
14	3	1	2	1	2	3	.....	7	5	9	10	4	6	5	.....	.....
14	7	1	1	1	2	1	1	6	7	2	5	12	5	6	2	1
13	5	2	1	.....	3	.....	2	4	2	6	7	3	12	4	.....	.....
17	3	.....	.....	.....	.....	.....	2	4	3	2	2	2	6	5	1	.....
3	1	.....	.....	.....	.....	1	.....	.....	1	2	.....	2	2	.....	.....	.....
1	.....	.....	.....	.....	.....	.....	.....	.....	1	.....	1	2	.....	.....	.....	.....
3	.....	.....	.....	.....	.....	.....	.....	.....	1	.....	1	.....	5	.....	.....	.....
.....	.....	.....	.....	.....	.....	1	.....	2	.....	1	.....	3	2	7	1	.....
14	4	1	1	1	1	2	.....	5	2	10	2	4	6	4	1	.....
7	4	2	3	3	1	.....	4	7	4	4	7	4	6	4	.....	.....
11	3	5	.....	1	3	1	1	2	4	3	2	2	4	.....	.....	.....
12	7	3	1	.....	2	.....	1	4	5	2	7	9	5	1	2	.....
5	.....	2	.....	.....	1	1	.....	.....	1	3	1	2	.....	1	1	.....
.....	1	.....	.....	1	.....	.....	1	2	.....	2	2	2	1	3	2	.....
7	4	.....	1	.....	3	2	2	3	2	4	1	2	7	4	.....	.....
.....	1	1	.....	.....	.....	.....	.....	1	.....	2	1	.....	2	2	.....	.....
2	2	2	4	3	9	7	5	19	19	21	33	42	25	13	2	.....
2	14	7	3	.....	5	2	5	20	25	12	21	37	35	2	5	.....
39	2	34	22	15	33	12	47	147	129	141	161	144	107	51	3	.....
304	65	26	11	10	41	12	41	140	138	112	163	156	132	66	11	.....

TABLE VI.—DEATHS, 1898.—Continued.

Exhibiting the Whole Number, the Proportion to Population, and Number of each Sex, in every Town and Division of the State.

TOWNS AND DIVISIONS OF THE STATE.	Total Deaths.	Population, 1898.*	Deaths per 1,000 of population.	DEATHS.	
				SEX.	Number of each Sex.
Scituate.....	53	3,402	15.2	Males.....	22
				Females.....	31
Smithfield.....	31	2,325	13.3	Males.....	19
				Females.....	12
WOONSOCKET.....	458	27,591	16.6	Males.....	235
				Females.....	223
PROVIDENCE COUNTY.....	5,144	307,752	16.7	Males.....	2,640
				Females.....	2,504
Charlestown.....	15	964	15.6	Males.....	7
				Females.....	8
Exeter.....	13	869	14.9	Males.....	6
				Females.....	7
Hopkinton.....	49	2,679	18.3	Males.....	26
				Females.....	23
Narragansett.....	13	1,302	10.0	Males.....	5
				Females.....	8
North Kingstown.....	63	4,571	13.8	Males.....	32
				Females.....	31
South Kingstown.....	83	5,376	15.4	Males.....	40
				Females.....	43
Richmond.....	24	1,623	14.8	Males.....	12
				Females.....	12
Westerly.....	109	8,049	13.5	Males.....	63
				Females.....	46
WASHINGTON COUNTY.....	369	25,433	14.5	Males.....	191
				Females.....	178
STATE INSTITUTIONS.....	170	2,204	77.1	Males.....	106
				Females.....	64

* Geometrically estimated.

TABLE VI.—DEATHS, 1898.—Continued.

Exhibiting the Number of Deaths in each Period of Life, in every Town and Division of the State.

Under 1 year.	PERIODS OF LIFE.															Age not stated.
	1 to 2.	2 to 3.	3 to 4.	4 to 5.	5 to 10.	10 to 15.	15 to 20.	20 to 30.	30 to 40.	40 to 50.	50 to 60.	60 to 70.	70 to 80.	80 to 90.	90 and over.	
1	.....	.....	1	1	.....	.....	1	.....	1	2	1	4	8	2	.....
5	1	.....	.....	.....	.....	.....	2	2	2	3	7	2	2	5	.....
8	3	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	2	2	3	.....
3	1	.....	.....	.....	.....	.....	.....	.....	.....	2	1	2	.....	2	1
96	12	2	5	4	8	3	3	20	16	14	17	15	15	3	2	
70	11	5	3	2	9	2	8	15	24	17	19	19	11	7	1	
675	140	53	41	29	73	46	66	222	199	223	274	264	221	102	11	
548	124	54	30	22	65	30	68	220	224	195	258	277	226	133	29	
.....	.....	.....	.....	.....	.....	1	.....	1	.....	.....	.....	1	4	.....	.....
2	1	.....	.....	.....	.....	.....	.....	.....	.....	2	.....	1	2	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	2	.....	.....	2	2	.....
1	.....	.....	.....	.....	.....	.....	.....	.....	1	1	.....	.....	3	.....	1
3	.....	2	.....	.....	1	.....	.....	1	1	1	.....	5	9	3	.....
3	.....	.....	.....	.....	.....	2	1	.....	3	.....	5	6	6	.....	3
2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	2	1	.....	.....
1	.....	1	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	3	2	.....
3	.....	.....	.....	.....	.....	.....	.....	2	3	2	2	9	3	7	1
2	1	1	.....	.....	1	1	1	1	4	.....	4	4	6	3	2
10	.....	.....	.....	.....	.....	.....	.....	2	1	4	2	5	8	7	1
5	1	1	.....	.....	.....	.....	2	4	3	2	3	6	5	9	2
1	.....	.....	.....	.....	.....	.....	.....	.....	1	2	.....	2	4	2	.....
2	1	.....	.....	.....	.....	.....	.....	.....	2	2	1	4	.....	.....	.....
8	.....	.....	.....	2	2	.....	2	8	5	6	7	5	13	5	.....
6	3	1	.....	.....	1	.....	1	2	4	5	1	8	8	6	.....
27	.....	2	.....	2	3	1	2	14	11	15	13	29	44	26	2
22	7	4	.....	.....	2	1	6	8	15	15	9	28	33	20	8
.....	
3	1	.....	.....	.....	.....	.....	2	8	17	14	17	15	15	12	2
4	.....	.....	.....	.....	.....	1	.....	3	3	5	13	16	11	7	1

TABLE VI.—DEATHS, 1898.—Continued.

(RECAPITULATION.)

Exhibiting the Whole Number, the Proportion to Population, and Number of each Sex, in every Division of the State.

DIVISIONS OF THE STATE.	Total Deaths.	Population, 1898.	Deaths per 1,000 of population.	DEATHS.	
				SEX.	Number of each Sex.
BRISTOL COUNTY.....	212	14,095	15.0	Males.....	99
				Females.....	113
KENT COUNTY.....	516	33,136	15.6	Males.....	258
				Females.....	258
NEWPORT COUNTY.....	494	31,793	15.5	Males.....	260
				Females.....	234
PROVIDENCE COUNTY.....	5,144	307,752	16.7	Males.....	2,640
				Females.....	2,504
WASHINGTON COUNTY....	369	25,433	14.5	Males.....	191
				Females.....	178
STATE INSTITUTIONS.....	170	2,204	77.1	Males.....	106
				Females.....	64
WHOLE STATE.....	6,905	414,413	16.7	Males.....	3,554
				Females.....	3,351

TABLE VI.—DEATHS, 1898.—Continued.

(RECAPITULATION.)

Exhibiting the Number of Deaths in each Period of Life, in every Division of the State.

Under 1 year.	PERIODS OF LIFE.															Age not stated.
	1 to 2.	2 to 3.	3 to 4.	4 to 5.	5 to 10.	10 to 15.	15 to 20.	20 to 30.	30 to 40.	40 to 50.	50 to 60.	60 to 70.	70 to 80.	80 to 90.	90 and over.	
25	3	2	.....	.....	1	1	2	4	2	8	11	21	10	7	1	1
22	6	.....	1	.....	.....	1	4	9	11	11	13	16	8	10	1	...
77	14	9	3	1	5	1	6	12	11	16	14	30	38	20	1	...
78	14	5	3	3	7	3	9	19	18	12	25	22	25	13	1	1
50	10	2	4	1	7	3	5	15	30	25	27	20	37	19	4	1
48	9	5	3	3	3	3	4	15	17	19	26	30	26	19	3	1
675	140	53	41	29	73	46	66	222	199	223	274	264	221	102	11	1
548	124	54	30	22	65	30	68	220	224	195	258	277	226	133	29	1
27	.....	2	.....	2	3	1	2	14	11	15	13	29	44	26	2	...
22	7	4	.....	.....	2	1	6	8	15	15	9	28	33	20	8	...
3	1	.....	.....	.....	.....	.....	2	8	17	14	17	15	15	12	2	...
4	.....	.....	.....	.....	.....	1	.....	3	3	5	13	16	11	7	1	...
857	168	68	48	33	89	52	83	275	270	301	356	379	365	186	21	3
722	160	68	37	28	77	39	91	274	288	257	344	389	329	202	43	3

TABLE VII.—CAUSES OF DEATH, 1898.

Arranged Alphabetically; showing the Number of each Sex, who died from each cause, in each month and in the whole year 1898; also the Number of Native born and Foreign born, and also the Number of Native and of Foreign Parentage, from each cause, for the year.

CAUSES OF DEATH.	Jan.		Feb.		Mar.		Apr.		May.		June.		July.		Aug.		Sept.		Oct.		Nov.		Dec.		NATIVITY.		PARENT-AGE.		SEX.	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	Am.	For.	Am.	For.	M.	F.
	CAUSES OF DEATH.																													
Abscess of Abdomen.....	1																								1	1	1	1	1	1
Brain.....									2																2	1	2	1	2	1
Kidney.....											2														1	1	2	2	2	2
Lip.....																										1	1	1	1	1
Liver.....										1															3	3	2	4	1	5
Lung.....																									2	1	1	1	1	1
Neck.....											1														1	1	1	1	1	1
Ovary.....	1																								2	1	2	1	1	3
Pelvis.....									1																1	1	1	1	1	1
Psoas.....														1											1	1	1	1	1	1
Rectum.....	1																								1	1	1	1	1	1
Scrotum.....																									1	1	1	1	1	1
Sub-Maxillary.....																									1	1	1	1	1	1
Abscesses, Multiple.....	1																								2	2	2	2	2	2
Accidents, Asphyxia.....	2	2									1			2	1										12	7	6	13	14	5
Bicycle.....																									2	2	2	2	4	4
Burns and Scalds.....	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	17	4	7	14	13	8
Drowning.....	1	1	1	1	1	2	5	7	11	18	1	1	2	8	1	1	2	2	2	2	2	2	2	2	37	23	24	36	56	4
Electric Car.....							1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	5	2	4	4	3	3	4

TABLE VII.—CAUSES OF DEATH, 1898.—Continued.

CAUSES OF DEATH.	Jan.		Feb.		Mar.		Apr.		May.		June.		July.		Aug.		Sept.		Oct.		Nov.		Dec.		PARENT-AGE.		SEX.				
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	Ab.	For.	M.	F.			
	M. F.		M. F.		M. F.		M. F.		M. F.		M. F.		M. F.		M. F.		M. F.		M. F.		M. F.		M. F.		M. F.		M. F.		M. F.		
Cellulitis, Pelvic.....																									1				1		
Pneumonous.....																															
Cerebritis.....	1						1																								
Childbirth*.....																															
Extra-Uterine Pregnancy..																															
Hydatid Pregnancy.....																															
Metritis.....																															
Miscarriage.....		1																													
Nephritis.....	2																														
Placenta Previa.....																															
Post-partum Hemorrhage..																															
Prolonged and Difficult La- bor.....	3	1																													
Puerperal Eclampsia.....																															
Fever.....	2																														
Mania.....	1																														
Peritonitis.....																															
Septicemia.....																															
Rupture of Uterus.....		3																													
Shock following Cesarean Section.....																															
Thrombus.....																															
Tubal Pregnancy.....		1																													

* Not otherwise placed.

TABLE VII.—CAUSES OF DEATH, 1898.—Continued.

	CAUSES OF DEATH.												PARENT-AGE.		SATURDAY.		SEX.												
	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Am.	For.	Am.	For.	M.	F.											
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.											
Cholera Infantum.....	2	3	1	2	2	4	3	7	9	7	44	44	99	88	60	56	16	14	2	1	1	1	461	7	163	305	240	228	
Morbus.....											3	1	3	2	1	3	1	1	1	1	1	1	1	10	4	4	10	8	6
Chorea.....																								1	1	1	1	1	1
Convulsions.....	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	4	2	1	5	2	4	
Infantile.....	3	2	2	2	2	2	4	1	1	1	2	2	1	1	3	3	2	1	3	1	5	48	19	29	23	25	25	25	
Group.....	2	1	1	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	7	1	3	5	4	4	
Membranous.....	1	2	1	1	4	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	31	2	9	24	18	15	
Cyanosis.....	1	1	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	16	1	6	10	12	4	
Cystitis.....	2	1	4	1	1	4	1	1	1	2	3	1	1	1	1	1	1	1	1	1	1	1	13	6	13	6	19	11	
Debility, Infantile.....	8	3	2	10	2	4	4	3	4	4	5	4	4	7	3	6	5	2	9	4	5	10	2	110	3	42	71	65	48
Asphyxia Neonatorum.....																							9	1	5	4	3	6	
Injury at Birth.....	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	6	1	4	2	6	1	
Premature Birth.....	4	6	5	1	5	2	5	9	7	9	2	9	2	10	5	1	6	4	5	6	2	3	4	117	1	49	68	70	47
Debility, General.....																							1	1	1	1	1	1	1
Senile.....																							30	14	29	15	22	22	22
Dementia.....	1	4	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	6	3	16	9	10	
Senile.....	1	2	2	1	2	2	4	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	17	8	16	9	13	12	
Diarrhoea.....	1	1	1	2	2	2	1	1	1	1	2	2	4	4	3	2	2	1	1	1	1	1	20	12	9	23	16	16	
Chronic.....	1	1	1	2	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	8	6	6	8	7	7	
Diabetes.....	2	1	2	1	1	1	1	2	1	1	1	1	2	1	1	1	1	1	1	1	1	1	15	6	12	9	11	10	
Mellitus.....	1	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	8	10	5	13	7	11	
Diphtheria.....	5	4	5	6	1	3	5	3	1	3	3	1	1	1	3	5	1	4	1	3	1	55	5	25	35	33	27	27	
Dropsy.....																							2	1	1	1	2	1	1
Dysentery.....	1	1	1	1	1	1	1	1	1	1	3	1	4	5	9	4	3	2	1	1	1	1	28	10	14	24	22	16	

TABLE VII.—CAUSES OF DEATH, 1898.—Continued.

CAUSES OF DEATH.	Jan.		Feb.		Mar.		Apr.		May.		June.		July.		Aug.		Sept.		Oct.		Nov.		Dec.		NATIVITY.		PARENT-AGE.		SEX.			
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	Am.	For.	M.	F.		
Eczema.....																										1	...	1	...	1	...	
Embolism, Arterial.....					1								1												1	2	1	2	1	2	1	2
Cerebral.....	1	1	2		1										1					2					4	4	8	4	8	4	8	
Empysema.....							1																		1	...	1	...	1	...		
Empyema.....					2	1																			4	1	3	2	4	1	3	
Endocarditis.....	2	1	3	1	3	1	2	1	3	2	2	3	1	1	2	3	1	3	1	3	2	2	2	2	24	13	16	21	18	19	18	
Enteritis.....	2	1	3	1	2	2	2	1	4	6	4	7	5	6	5	6	6	4	4	2	1	1	3	62	16	40	38	40	38	40	38	
Gastro.....	2	1	1	1	1	1	2	2	2	2	3	6	5	14	13	5	10	8	8	3	2	4	4	85	13	40	58	49	49	49		
Tubercular.....		1			1			4				1	1	1	1	2	1	1	1	1	1	2	2	7	7	3	11	10	4	4		
Enterocolitis.....	1		2						2	4	1	7	5	5	10	5	3	2	4	1	1	2	2	54	3	24	33	26	31	31		
Epilepsy.....	1	1							1	1	1	1	1	1	1	1	1	1	1	1	1	2	13	1	8	6	4	10	10	4		
Erysipelas.....	1				2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	...	1	...	1	...	1	...		
of Chest.....														1										...	1	...	1	...	1	...		
of Face.....	1		1		1									1										1	...	1	...	1	...	1	...	
Fever, Malarial.....	1	1	2	1	1	2	1	1	1	1	1	1	1	1	2	4	1	1	2	1	1	1	1	5	1	4	2	3	3	3		
Typhoid.....	4	3	5	2	5	1	5	1	4	1	1	3	3	5	1	3	1	9	8	2	4	3	2	48	28	23	53	49	27	27		
Fibroid of Uterus.....	3	1					2		3	2	3	2	3	3	2	2	2	2	2	2	2	2	2	9	7	5	11	...	16	16		
Cystic of Broad Ligament.....									1															1	...	1	...	1	...	1	...	
Fistula, Rectal.....	1																							1	...	1	...	1	...	1	...	
Gall Bladder, Disease of.....									1															...	1	...	1	...	1	...	1	...
Gall Stones.....	1	2			1				1				1		1									6	4	4	6	3	7	7		
Gangrene of Foot.....	1	1			1				1				1		1									3	1	3	1	3	1	3	1	
of Mouth.....																								1	...	1	...	1	...	1	...	
Senile.....									1															1	...	1	...	1	...	1	...	

TABLE VII.—CAUSES OF DEATH, 1898.—Continued.

CAUSES OF DEATH.	Jan.		Feb.		Mar.		Apr.		May.		June.		July.		Aug.		Sept.		Oct.		Nov.		Dec.		SASTVITY.		PARENT-AGE.		SEX.					
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.				
	M. F.		M. F.		M. F.		M. F.		M. F.		M. F.		M. F.		M. F.		M. F.		M. F.		M. F.		M. F.		M. F.		M. F.		M. F.		M. F.			
Gastritis.....	2	3	3	2	2	2	4	1	1	3	1	3	6	2	4	3	2	7	5	3	2	42	24	26	40	32	34							
Acute.....	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1				
Glossitis.....																																		
Gonorrhea, Exophthalmic	1																																	
Hæmatemesis.....	1		1	1																														
Hæmoptysis.....																																		
Heart Diseases*.....	19	8	10	8	12	9	10	14	14	8	5	7	13	11	6	9	15	6	13	7	12	7	7	7	142	95	113	124	136	101				
Dilatation.....	1				2	1	1			4	1																							
Enlargement.....	1		1		1		1																											
Fatty Degeneration.....	1		1	1	1	1	1		2	1	1	1	1	1	1	1	1	3	1	2	1	2	1	2	15	3	14	4	13	5				
Hypertrophy.....	2																																	
Valvular Disease.....	7	6	3	6	7	7	10	3	7	10	11	6	3	11	6	7	6	8	2	9	6	8	11	10	112	58	95	75	79	91				
Hemiplegia.....	1	1	1	1					3	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	5	5	5	5	2	8				
Hepatitis.....					1	1	1	1	2						2	1										8	6	5	9	6	8			
Hæmorrhage, Cerebral.....	5	5	2	7	4	3	6	2	7	1	6	5	3	3	8	5	4	3	4	5	8	2	12	70	45	62	53	46	63					
General (Infants).....	1							1																	2	1	1	1	2					
Intestinal.....																																		
Nasal.....																																		
Umbilical.....																																		
Hæmia.....	1	1	1	1	1	1	1	2	3	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	9	11	6	14	13	7				
Femoral.....	1																																	
Inguinal.....																																		
Umbilical.....																																		

* Not otherwise placed.

TABLE VII.—CAUSES OF DEATH, 1898.—Continued.

CAUSES OF DEATH.		CAUSES OF DEATH.												NATIVITY.		PARENT-AGE.		SEX.					
		Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Am.	For.	Am.	For.	M.	F.				
Liver Diseases, Cirrhosis.....		1	1	1	2	3	2	1	1	2	1	2	2	2	1	3	2	17	24	13	28	22	19
Congestion.....		1								1							1	1	3	1	3	1	2
Enlargement.....		1								1									1		1	1	1
Fatty Degeneration.....		1																	1	1	3	1	3
Hypertrophy.....		2	1		1		1						1	1				4	2	3	3	4	2
Sclerosis.....		1	1		1		1			1				2				6	1	5	2	6	1
Locomotor Ataxia.....		1	1					1										1	1	1		1	1
Lymphadenoma.....										1								1					
Malaria.....		1	1		1		1		1	1	1	1	1	1	1	2	6	3	4	5	4	5	4
Malassimilation.....		1	1							1	1	1	2	3	1	2	14	14		7	7	7	7
Malformation of Anus.....						1						1	1	1	1	1	4	4		3	1	3	1
Bile Duct.....						1											1	1				1	1
Foramen Ovale.....		2	3		1		2		1	1		2	2	1	1	1	18	18		9	9	11	7
Spina Bifida.....		1	1		1	2				1		1					9	9		2	7	3	6
Urinary Organs.....						1											1	1			1	1	1
Unspecified.....																	2	2			2		2
Malnutrition.....		3	1	1	2	3	4	4	1	4	2	6	6	10	2	3	4	71	71	34	37	40	31
Mania, Acute.....					1			1		1							2	2	1	2	1	2	1
Chronic.....									2	1	1	1							6		6	2	4
Measles.....		1	4	1		3	1	2	1	1	2						16	16	2	3	15	11	7
Melancholia.....		1															5	5	2	3	4	1	6
Meningitis.....		10	3	7	8	7	12	14	6	9	10	4	8	10	5	11	7	152	18	61	109	96	74
Cerebro-Spinal.....		3	1	1	2	4	10	3	8	4	4	4	3	4	5	1	1	55	12	15	52	38	29
Spinal.....		1	1	1	1			2	2	3		1					15	15	2	4	13	7	10

TABLE VII.—CAUSES OF DEATH, 1898.—Continued.

CAUSES OF DEATH.	Jan.		Feb.		Mar.		Apr.		May.		June.		July.		Aug.		Sept.		Oct.		Nov.		Dec.		SEX.					
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.		
	NATIVITY.		NATIVITY.		NATIVITY.		NATIVITY.		NATIVITY.		NATIVITY.		NATIVITY.		NATIVITY.		NATIVITY.		NATIVITY.		NATIVITY.		NATIVITY.		NATIVITY.		NATIVITY.		NATIVITY.	
Swicide, by Poison unknown.....																														
by "Rough on Rats".....		1																												
by Shooting.....	2					5																								
by Strychnine.....																														
Syphilis.....	2																													
Congenital.....	1	2	1	2																										
Tabes Mesenterica.....																														
Tetanus Neonatorum.....																														
Thrombus.....		1																												
Tonsillitis.....																														
Tuberculosis, General.....	1		2	1	1																									
Tuberculous of Hip.....	33	32	35	27	45	32	34	34	37	33	35	23	27	29	37	27	24	34	19	30	39	34	24	40	47	293	226	538	389	375
Kidneys.....																														
Liver.....																														
Parotid Gland.....	1																													
Spine.....																														
Tumor of Abdomen.....																														
Bladder.....																														
Brain.....	1																													
Colon.....																														
Liver.....																														
Lung.....																														
Ovary.....	1	2																												

TABLE VIII.—CAUSES OF DEATH, 1898.—Continued.

CAUSES OF DEATH.	Under 1.		1 and 2.		2 to 3.		3 to 4.		4 to 5.		5 to 10.		10 to 15.		15 to 20.		20 to 30.		30 to 40.		40 to 50.		50 to 60.		60 to 70.		70 to 80.		80 to 90.		90 and over.		Age not stated.		SEX.		TOTAL.			
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.				
Accidents, Exposure.....																																								
Falls.....	2	1	1	1						3				2	1	1			2		1		3	2			1	1									5	2	7	
Firearms.....																																					36	22	58	
Insolation.....	1	1	1																4		4		1												14	9	23			
Lightning.....																																			1		1	1		
Machinery.....																																			5		5	5		
Overdose of Medicine.....																																			3		3	3		
Poison.....																			1																6	1	7			
Lead.....																																			1		1	1		
Railroad.....																																								
Various.....	2	1																																	28	2	30			
Albuminuria.....																																			31	6	37			
Alcoholism.....																																								
Delirium Tremens.....																																			34	8	42			
Anemia.....																																			3		3	3		
Pernicious.....																																			2	3	5			
Aneurism of Abdominal Aorta.....																																			4	9	13			
Angina Pectoris.....																																								
Apoplexy and Paralysis.....																																								
Appendicitis.....																																								
Arthritis Deformans.....																																								
Asthma.....																																								
Atelectasis Pulmonum.....	6	2																																			6	2	8	

TABLE VIII.—CAUSES OF DEATH, 1898.—Continued.

CAUSES OF DEATH.	Under 1.		1 and under 2.		2 to 3.		3 to 4.		4 to 5.		5 to 10.		10 to 15.		15 to 20.		20 to 30.		30 to 40.		40 to 50.		50 to 60.		60 to 70.		70 to 80.		80 to 90.		90 and over.		Age and not stated.		SEX.		TOTAL.													
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.																
	Cholera Infantum.....	207	188	28	36	5	4																															240	228	468										
Morbus.....																																						8	6	14										
Chorea.....																																							1	...	1									
Convulsions.....																																								2	4	6								
Infantile.....	19	22	3	2	1	1																																		23	25	48								
Group.....	1	2	2	2																																					4	4	8							
Membranous.....	5	5	4	1	3	2																																			18	15	33							
Cyanosis.....	12	4																																							12	4	16							
Cystitis.....																																									19	...	19							
Debility, Infantile.....	60	46	4	2	1																																				65	48	113							
Asphyx. Neonatorum.....	3	6																																							3	6	9							
Injury at Birth.....	6																																								6	...	6							
Premature Birth.....	70	47																																								70	47	117						
Debility, General.....																																												1	1	2				
Senile.....																																												1	1	2				
Dementia.....																																														22	22	44		
Senile.....																																													9	10	19			
Diarrhoea.....	7	5																																											13	12	25			
Chronic.....																																														16	16	32		
Diabetes.....																																														7	7	14		
Mellitus.....																																															11	10	21	
Diphtheria.....	2	6	6	2	5	6	2	6	12	1																																			7	11	18			
Dropsy.....																																																33	27	60
Dysentery.....	9	3	2	2																																											2	1	3	
																																																22	16	38

TABLE VIII.—CAUSES OF DEATH, 1898.—Continued.

CAUSES OF DEATH.	Under 1.		1 and under 2.		2 to 3.		3 to 4.		4 to 5.		5 to 10.		10 to 15.		15 to 20.		20 to 30.		30 to 40.		40 to 50.		50 to 60.		60 to 70.		70 to 80.		80 to 90.		90 and over.		Age not stated.		SEX.		TOTAL		
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.			
Gastritis.....	2	5	1	1					1	1									5	2	4	2	6	5	5	3	5	3	2	5							32	34	66
Acute.....																																					1	1	2
Glossitis.....																																					1	1	2
Goitre, Exophthalmic																			1	1															3	1	4		
Hæmatemesis.....																																			1	1	2		
Hæmoptysis.....																																			1	1	2		
Heart Diseases*	3				2	1	2	2	2	1	7	8	11	17	6	11	17	8	21	18	37	21	36	23	10	12	1								136	101	237		
Dilatation.....																			2	3	2	1	3												8	4	12		
Enlargement.....																			1	1	1	1	2												1	3	4		
Fatty Degeneration...																			1	1	3	3	5	1	2										13	5	18		
Hypertrophy.....																			1	1	1	2	2												5	4	9		
Valvular Disease....	1	3	1	1	2	2	8	2	5	8	14	16	14	17	22	27	14	4	7	1															79	91	170		
Hemiplegia.....																			1	1	1	1	3	1	2	1	2	1							2	8	10		
Hepatitis.....	1																		1	3	2	1	2	1	1	1									6	8	14		
Hemorrhage, Cerebral																			1	6	10	12	17	11	10	10	19	2	8	3	1				46	69	115		
General.....	2																																		2	2	4		
Intestinal.....																																			1	1	2		
Nasal.....	1																																		1	1	2		
Umbilical.....	2																																		13	7	20		
Hernia.....	1																																		1	1	2		
Femoral.....																																			1	1	2		
Inguinal.....																																			1	1	2		
Umbilical.....	2																																		1	5	5		

* Not otherwise placed.

TABLE VIII.—CAUSES OF DEATH, 1898.—Continued.

CAUSES OF DEATH.	Under 1.		1 and under 2.		2 to 3.		3 to 4.		4 to 5.		5 to 10.		10 to 15.		15 to 20.		20 to 30.		30 to 40.		40 to 50.		50 to 60.		60 to 70.		70 to 80.		80 to 90.		90 and over.		Age not stated.		SEX.		TOTAL.		
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.			
Meningitis, Tubercular.	11	6	9	6	3	6	1	2			6		1	3			1		1	1	1		1														34	23	57
Morphinism																			1	1															1	5	6		
Myelitis.			1														1	1															1	3	4				
Myocarditis																	1	1															3	1	4				
Myxedema																																			1	1	1		
Necrosis of Tibia.																																			1	1	1		
Nephritis.	3	1	1				2	3	1	1	1	1	3	2	4	9	8	4	5	5	11	7	10	3	10	6	7	1	2	1	2	1	2	1	53	50	103		
Chronic															1	4	5	5	15	13	11	9	9	8	11	3	8	1	3	1	8	1	56	66	122				
Neurasthenia																			1	3															4	4	4		
Edema Glottidis.	1																																		1	1	1		
Edema of Lungs																																			1	1	1		
Old Age.																																			64	97	161		
Osteomalacia																																			1	1	1		
Otitis (Suppurative).																																			1	1	1		
Otitis, Media																																			1	1	1		
Pancreatitis.																																			1	1	1		
Paralysis Agitans.																																			1	1	1		
Paraplegia																																			1	3	4		
Paresis.																																			5	2	7		
Parotitis	1																																		1	1	1		
Pemphigus.																																			1	1	1		
Pericarditis.	1																																		4	4	8		
Peritonitis.																																			2	9	11		
Tubercular.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	5	4	9		

TABLE VIII.—CAUSES OF DEATH, 1898.—Continued.

CAUSES OF DEATH.	Under 1.		1 and under 2.		2 to 3.		3 to 4.		4 to 5.		5 to 10.		10 to 15.		15 to 20.		20 to 30.		30 to 40.		40 to 50.		50 to 60.		60 to 70.		70 to 80.		80 to 90.		90 and over.		Age not stated.		SEX.		TOTAL.		
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.			
Pertussis.....	19	31	10	17	6	6	2	2	2	2	2	1																									37	59	96
Phlegmon.....																																			1	6	7		
Pleurisy.....	1																																		8	6	14		
Pneumonia.....	74	51	26	17	8	8	7	3	5	3	2	9	4	4	4	5	14	9	25	14	23	17	27	31	38	28	30	24	12	22	2		299	243	542				
Potts' Disease.....																																	1		1		1		
Prostate Disease.....																																			12		12		
Purpura Hemorrhagica.....																																	2	1	3				
Pyemia.....																																			...	...	...
Pyo-Salpinx.....																																			...	...	...
Rachitis.....	1	2	1		1																														3	3	6		
Rheumatism.....																																			6	4	10		
Acute.....																																			5	1	6		
Chronic.....																																			...	...	...
Riggs' Disease of Gums.....																																			...	...	...
Salpingitis.....																																			...	...	...
Sarcoma of Abdomen.....																																			...	...	...
Breast.....																																			...	...	...
Femur.....																																			...	...	...
Humerus.....																																			...	...	...
Kidney.....																																			...	...	...
Liver.....																																			...	...	...
Maxillary (Superior).....																																			...	...	...
Peritonæum.....																																			...	...	...
Sigmoid Flexure.....																																			...	...	...

GROUPS.																						
CLASS I.																						
57	125	40	94	332	64	175	895	132	69	1,983	Communicable.....	28.72	12.70	2.29	30.55	32.23	29.36	28.47	26.94	27.59	24.22	26.89
.....	4	1	2	15	.....	1	26	2	5	56	Dietic.....	.81	1.35	.44	.89	.18	.....	1.29	.57	.69	.78	.....
CLASS II.																						
18	19	7	20	53	4	27	133	7	27	315	Diathetic.....	4.56	7.32	1.53	4.54	4.97	1.84	4.54	5.73	4.23	3.68	2.49
CLASS III.																						
22	60	21	55	184	26	4	267	57	47	784	Dis. of Nervous System.....	11.35	12.74	12.45	9.12	8.84	11.93	15.52	15.76	14.48	11.63	10.38
17	42	8	36	97	11	31	238	30	38	551	Dis. of Circulatory System.....	7.98	10.30	6.55	8.13	6.26	5.05	8.33	10.32	5.52	8.14	8.02
7	17	3	11	33	16	36	123	17	20	283	Dis. of Respiratory Organs.....	4.10	5.42	3.71	4.20	6.63	7.34	2.83	3.15	2.07	3.29	3.30
18	52	14	19	95	22	36	314	36	41	647	Dis. of Digestive Organs.....	9.37	11.11	7.86	10.72	6.63	10.10	8.15	5.44	9.66	10.08	8.49
20	30	5	22	94	12	47	246	30	41	547	Dis. of Urinary Organs.....	7.92	11.11	6.55	8.40	8.66	5.50	8.06	6.30	3.45	5.81	9.43
1	.....	.....	1	4	2	2	22	1	3	36	Dis. of Reproductive Organs.....	.52	.81	.22	.75	.37	.92	.34	.29	.....	.....	.47
.....	.....	.....	1	.....	.....	1	7	.....	.....	12	Dis. of Osseous and Loco. System	.17	.....	.....	.24	.18	.46	.17	.....	.69	.....	.....
.....	.....	.....	1	6	.....	1	16	2	6	33	Dis. of Integumentary System....	.48	1.63	.44	.55	.18	.....	.51	.29	.69	.....	.....
.....	.....	.....	1	1	.....	.....	2	.....	.....	4	Dis. of Org. of Hearing and Sight	.06	.....	.....	.07	.....	.....	.09	.29	.....	.....	.....
CLASS IV.																						
32	121	13	48	125	50	90	375	118	23	995	Developmental Dis. of Children.	14.41	6.21	25.76	12.80	16.58	22.94	10.72	13.75	8.97	23.45	15.09
.....	5	.....	1	7	.....	7	25	3	1	49	Developmental Dis. of Women...	.72	.27	.65	.85	1.29	.....	.60	.29	.....	.97	.....
9	14	13	19	53	2	23	57	3	21	211	Developmental Dis. of Old Age...	3.05	5.69	.65	1.95	4.24	.92	4.54	5.44	8.97	2.13	4.25

TABLE IX.—CLASSIFICATION AND PERCENTAGE, 1898.—Continued.

NUMBER OF DEATHS IN EACH DIVISION OF THE STATE.		PERCENTAGE OF DEATHS IN EACH DIVISION.										Percentage in the Whole State.	CAUSES OF DEATH.	PERCENTAGE OF DEATHS IN EACH DIVISION.																					
		Bristol County.	Kent County.	Newport County Towns.	Newport City.	Providence County Towns.	Central Falls.	Pawtucket.	Providence City.	Woonsocket.	Washington County.			Providence City.	Providence County Towns.	Newport City.	Newport County Towns.	Kent County.	Bristol County.																
11	18	14	12	59	7	9	134	10	22	296	4.29	5.96	2.19	4.57	1.66	3.21	5.06	3.44	9.66	3.49	5.19	4.29	5.96	2.19	4.57	1.66	3.21	5.06	3.44	9.66	3.49	5.19			
..	1	..	..	1	..	..	9	1	1	13	.19	.27	.22	.31	..	..	..	.09	..	..	.19	..	.27	.22	.31	..	..	..	..	..	.19	..
..	3	..	4	3	..	5	24	6	1	46	.67	.27	1.31	.82	.92	..	.26	1.15	..	..	.58	..	.27	1.31	.82	.92	..	.26	1.15	..	..	.58
..	8	4	3	5	1	1	16	3	3	44	.63	.81	.65	.55	.18	.46	.43	.86	2.76	1.5581	.65	.55	.18	.46	.43	.86	2.76	1.55		
CLASS V.																																			
..	
..
CLASS I.—ZYMOTIC.																																			
<i>Group One.—Communicable Diseases.</i>																																			
..	1	6	3	3	4	..	1	18	.26	.27	..	.14	.55	1.38	.51	.2926	.27	..	.14	.55	1.38	.51	.29	
..	1	..	1	7	3	3	4	..	2	21	.30	.54	..	.14	.55	1.38	.60	.2930	.54	..	.14	.55	1.38	.60	.2919		
..	10	..	2	4	2	1	10	2	2	33	.48	.54	.44	.34	.18	.92	.34	.5748	.54	.44	.34	.18	.92	.34	.57	1.94		

2	2	1	8	5	30	10	2	60	Diphtheria.....	.87	.54	2.19	1.02	.92	.....	.69	.29	1.36	.39	.....	
.....	.....	.....	1	.....	.....	.....	1	2	Tonsillitis.....	.03	.27	.....	.....	.....	.....	.09	.....	.....	.....	.....
.....	.....	.....	1	.....	.....	.....	.....	2	Carbuncle.....	.03	.....	.....	.....	.46	.....	.....	.29	.....	.....	.....
1	1	.....	.....	3	3	.....	1	9	Erysipelas.....	.13	.27	.....	.10	.55	.....	.....	.29	.....	.19	.....	
1	1	.....	4	1	3	7	2	22	Fever, Puerperal.....	.32	.54	.65	.24	.55	.46	.34	.....	.....	.19	.47	
1	4	.....	1	10	.....	11	36	67	Meningitis, Cerebro-Spinal.....	.97	.....	.87	1.23	2.03	.....	.86	.29	.....	.78	.47	
1	.....	.....	2	6	.....	7	13	.....	Fever, Malarial.....	.45	.54	.....	.44	1.29	.....	.51	.57	.....	.....	.47	
2	3	5	6	9	.....	8	39	3	76	Fever, Typhoid.....	1.10	.27	.65	1.33	1.47	.....	.77	1.72	3.45	.58	.94
8	3	4	1	15	1	13	26	1	75	Influenza.....	1.09	.81	.22	.89	2.39	.46	1.29	.29	2.76	.58	3.77	
.....	.....	.....	.....	.....	.....	.....	.....	1	Parotitis.....	.01	.....	.....	.03	.....	.....	.....	.....	.....	.....	.....	.....
5	2	4	17	2	57	5	4	96	Pertussis.....	1.39	1.08	1.09	1.95	.37	1.46	1.1539	2.36
8	39	18	23	103	23	39	241	33	15	542	Pneumonia.....	7.85	4.07	7.21	8.22	7.18	10.55	8.83	6.59	12.41	7.56	3.77
1	2	.....	3	1	2	13	1	.....	23	Syphilis.....	.33	.....	.22	.44	.37	.46	.26	.....	.....	.39	.47
1	2	.....	1	.....	4	4	1	1	14	Hydrocephalus.....	.20	.27	.22	.14	.74	.....	.09	.....	.....	.39	.47
.....	.....	.....	1	.....	.....	2	.....	1	5	Scrofula.....	.07	.27	.....	.07	.....	.....	.....	.29	.....	.19	.....
.....	.....	.....	.....	.....	2	2	1	.....	7	Tuberc Mesenterica.....	.10	.....	.22	.07	.37	.....	.....	.....	.....	.39	.....
2	.....	.....	2	1	.....	7	1	1	14	Tubercular Enteritis.....	.20	.27	.22	.24	.....	.46	.17	.....	.....	.39	.....
.....	.....	.....	1	2	.....	.....	.....	1	5	Tubercular Laryngitis.....	.07	.....	.22	.....	.....	.....	.17	.29	.....	.19	.....
2	2	1	8	2	3	30	8	1	57	Tubercular Meningitis.....	.83	.27	1.75	1.02	.55	.92	.69	.2939	.94
.....	.....	.....	1	.....	.....	1	6	1	9	Tubercular Peritonitis.....	.13	.....	.22	.20	.18	.....	.....	.....	.29	.....	.....
26	45	11	44	121	26	61	343	57	28	765	Tuberculosis, Pulmonary.....	11.08	7.59	12.45	11.71	11.79	11.93	10.38	12.61	7.59	8.72	12.26
1	2	2	5	1	17	1	29	Tuberculosis, General.....	.42	.2758	.1843	.5739	.47

TABLE IX.—CLASSIFICATION AND PERCENTAGE, 1898.—Continued.

NUMBER OF DEATHS IN EACH DIVISION OF THE STATE.		PERCENTAGE OF DEATHS IN EACH DIVISION.										Percentage in the Whole State.	CAUSES OF DEATH.																	
		Bristol County.	Kent County.	Newport County.	Newport City.	Providence County.	Providence City.	Pawtucket.	Central Falls.	Providence County Towns.	Newport City.			Newport Towns.	Kent County.	Bristol County.														
1	6	...	...	...	...	5	...	1	7	2	2	2	2	2	2	24	Angina Pectoris.....	.35	.54	.44	.24	.18	...	.43	...	...	...	...	1.16	.47
...	3	1	3	...	...	7	...	5	14	1	1	1	1	1	1	37	Endocarditis.....	.54	.27	.22	.48	.92	...	.60	.86	...	...	...	.58	...
...	1	...	...	...	...	...	...	...	5	2	...	...	...	...	...	8	Pericarditis.....	.12	...	.44	.17	...	...	...	...	...	...	.19	...	
16	32	7	33	...	...	85	9	28	211	24	35	480	...	...	...	480	<i>Heart Diseases</i>	6.95	9.49	5.24	7.20	5.16	4.13	7.19	9.46	4.83	6.20	7.55	...	
<i>Group Three.—Diseases of the Respiratory Organs.</i>																														
1	...	1	...	...	...	...	...	4	4	...	2	12	...	...	...	12	Asthma.....	.17	.54	...	.14	.74	...	...	...	...	...	...	.47	...
5	9	...	10	...	...	22	13	27	83	11	9	189	...	...	...	189	Bronchitis, Acute.....	2.74	2.44	2.40	2.83	4.97	5.96	1.88	2.87	...	1.74	2.36	...	...
1	5	1	...	...	...	5	2	2	20	5	6	47	...	...	...	47	Bronchitis, Chronic.....	.68	1.63	1.09	.68	.37	.92	.43	...	...	.69	.97	.47	...
...	2	...	...	...	...	2	1	...	2	1	1	9	...	...	...	9	Croup.....	.13	.27	.22	.07	...	.46	.17	...	...	.39	...	...
...	...	1	...	...	...	1	...	...	1	...	...	3	...	...	...	3	Laryngitis.....	.04	...	...	.03	...	...	.09	...	...	.69	...	...	...

1	1	1	2	3	11	1	19	Pleurisy.....	.28	.27	.38	.55	.17	.29	.19				
1	1	1	1	1	2	1	4	<i>Lung Diseases</i>.....	.06	.27	.07	.07	.09					
<i>Group Four.—Diseases of the Digestive Organs.</i>																			
1	2	1	4	2	33	2	45	Appendicitis.....	.65	.54	1.13	.17	1.15	.69	.39	.47			
1	2	3	3	1	5	2	19	Intestines, Obstruction of.....	.28	.54	.17	.37	.46	.86	.39	.47			
1	1	1	4	1	2	1	8	Intestines, Ulceration of.....	.12	.27	.07	.18	.34	.29					
1	1	1	5	1	2	1	11	<i>Intestinal Diseases</i>.....	.16	.27	.07	.18	.43	.29	.19			
3	2	2	12	1	32	1	57	Enterocolitis.....	.83	.22	1.09	.37	.46	1.03	.57	1.38	.39	1.42	
1	8	3	1	7	3	6	60	Diarrhea.....	.87	1.08	.87	.82	1.11	1.38	.60	.29	2.07	1.55	
2	6	1	7	1	16	5	38	Dysentery.....	.55	.27	1.09	.55	.60		.69	1.16	.94		
3	6	1	12	10	2	28	78	Enteritis.....	1.13	2.44	1.31	.96	.37	4.59	1.03	.29	.69	1.16	1.42
1	2	1	19	6	60	6	98	Enteritis, Gastro.....	1.42	.81	1.31	2.05	1.11	1.63	.29	.69	.39		
1	1	1	1	1	1	1	1	Fistula.....	.01	.27									
1	1	1	1	1	7	1	10	Gall Stones.....	.14		.24	.18	.09		.19				
4	10	1	9	4	33	6	75	Gastritis.....	1.09	1.63	1.31	1.13	.37	1.83	.77	.69	1.94	1.89	
1	1	1	1	1	1	1	1	Gastritis, Acute.....	.01	.27									
3	3	1	3	3	6	3	14	Hepatitis.....	.20	.27	.20	.20	.26	.69	.58				
1	1	1	3	1	17	1	28	Hernia.....	.41	.27	.22	.58	.74	.29	.19				
1	1	1	1	1	6	1	8	Intussusception.....	.12	.27	.20				.19				
1	1	1	1	1	3	3	7	Jaundice.....	.10	.81	.10				.19				

1	2	1	3	2	4	5	4	3	21	Diabetes.....	.30	.87	.17	.74	.92	.26	.....	.39	.47		
1	1	2	1	1	3	7	3	1	18	Diabetes, Melitus.....	.26	.65	.24	.55	.....	.09	.....	.....	.....
1	1	2	1	1	2	7	.....	14	14	<i>Kidney Diseases</i>.....	.20	.....	.24	.37	.....	.09	.57	.69	.19		
6	15	1	3	39	4	16	92	5	23	204	2.95	6.24	1.69	3.14	2.95	1.83	3.34	.86	.69	2.91	2.83
4	2	.....	8	14	3	8	50	10	4	103	1.49	1.08	2.19	1.71	1.47	1.38	1.20	2.29	.....	.39	1.89
5	4	1	8	24	2	10	58	5	5	122	1.77	1.35	1.09	1.98	1.84	.92	2.06	2.29	.69	.78	2.36
1	1	.....	1	1	1	7	.....	1	12	Prostate Disease.....	.17	.27	.....	.18	.46	.09	.....	.....	.....	.19	.....
4	1	.....	1	6	.....	2	12	2	28	Uremia.....	.41	.....	.41	.37	.....	.51	.29	.....	.....	.19	1.89
<i>Group Six.—Diseases of the Generative Organs.</i>																					
FEMALES.																					
.....	.....	.....	.....	.....	.....	3	.....	3	3	3	.04	.....	.10	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	1	.....	1	9	Ovarian Tumor.....	.13	.....	.14	.18	.....	.34	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	4	.....	1	5	Pyo Salpinx.....	.07	.....	.14	.....	.....	.....	.....	.....	.....	.....	.....
1	.....	.....	1	.....	2	1	11	.....	3	19	.28	.81	.....	.38	.18	.92	.....	.29	.....	.....	.17
<i>Group Seven.—Osseous and Locomotory System.</i>																					
.....	.....	.....	.....	.....	.....	4	.....	.....	4	Bones, Diseases of.....	.06	.....	.14	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	1	.....	.....	1	Joint Diseases.....	.01	.....	.....	.....	.....	.09	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	1	.....	1	1	7	.10	.....	.10	.18	.46	.09	.....	.....	.....	.69	.....

TABLE X.—*Causes of Deaths Registered in Rhode Island,*

Class.	CAUSES OF DEATH.*	1853.	1854.	1855.	1856.	1857.	1858.	1859.
	ALL CAUSES.....	1,291	1,806	1,970	2,225	2,510	2,793	2,447
	SPECIFIED CAUSES.....	1,176	1,655	1,782	1,919	2,222	2,483	2,184
	[CLASSES.]							
I.	ZYMOTIC DISEASES.....	504	604	682	820	924	1,124	915
II.	CONSTITUTIONAL DISEASES.....	67	58	68	88	106	112	96
III.	LOCAL DISEASES.....	334	580	476	440	549	564	552
IV.	DEVELOPMENTAL DISEASES.....	208	357	482	510	561	596	532
V.	VIOLENT DEATHS.....	63	56	74	61	82	87	89
	[GROUPS.]							
I.	1. COMMUNICABLE DISEASES.....	489	588	668	804	891	1,088	887
	2. DIETIC DISEASES.....	14	11	8	15	29	26	23
	3. PARASITIC DISEASES.....	1	5	6	1	4	10	5
II.	1. DIATHETIC DISEASES.....	67	58	68	88	106	112	96
	DISEASES OF—							
III.	1. NERVOUS SYSTEM.....	101	90	126	117	158	165	164
	2. ORGANS OF CIRCULATION.....	29	40	65	43	67	67	64
	3. RESPIRATORY ORGANS.....	46	62	72	93	98	101	94
	4. DIGESTIVE ORGANS.....	142	376	186	158	188	198	196
	5. URINARY ORGANS.....	6	4	13	10	26	17	23
	6. ORGANS OF GENERATION.....	5	4	3	5	2	7	....
	7. ORGANS OF LOCOMOTION.....	3	1	2	7	6	6	9
	8. INTEGUMENTARY SYSTEM.....	2	3	9	7	9	3	2
	9. ORGANS OF SPECIAL SENSE. EYE AND EAR.....	....	....	....	....	....	....	....
	DEVELOPMENTAL DISEASES OF—							
IV.	1. CHILDREN.....	122	255	342	362	376	403	358
	2. WOMEN.....	10	7	9	14	13	24	14
	3. OLD PEOPLE.....	58	67	84	76	119	114	117
	4. DISEASES OF NUTRITION.....	18	28	47	58	53	55	43
V.	1. ACCIDENT OR NEGLIGENCE.....	57	53	57	56	73	73	79
	2. BATTLE.....	....	....	....	....	....	....	....
	3. HOMICIDE.....	3	....	9	1	1	1	1
	4. SUICIDE.....	3	3	8	4	8	13	9
	—							
	CAUSES ILL-DEFINED.....	15	20	19	14	30	14	22
	—							
	CAUSES NOT STATED.....	100	131	169	292	258	296	241

* Still-born included in this table.

For each of the Forty-Six Years, 1853 to 1898.

1860.	1861.	1862.	1863.	1864.	1865.	1866.	1867.	1868.	1869.	1870.	1871.	1872.	1873.	1874.	1875.	1876.
2,853	3,073	2,714	3,318	3,498	3,582	3,142	3,052	3,124	3,602	3,472	3,567	4,419	4,631	4,506	4,563	4,340
2,628	2,853	2,505	3,081	3,255	3,335	2,938	2,827	2,788	3,251	3,276	3,275	3,986	4,344	4,207	4,300	4,065
1,073	1,198	1,032	1,278	1,477	1,543	1,172	1,063	1,093	1,413	1,268	1,265	1,377	1,689	1,690	1,657	1,613
131	126	122	141	123	139	132	123	130	144	167	151	187	198	155	193	199
632	768	660	925	855	835	801	809	666	753	767	844	1,081	1,090	1,103	1,104	1,110
657	653	584	612	684	715	698	710	784	819	935	890	1,195	2,211	1,199	1,175	1,020
135	108	107	125	116	103	132	122	115	122	139	125	146	156	150	171	153
1,038	1,156	1,002	1,235	1,437	1,525	1,160	1,013	1,076	1,390	1,242	1,235	1,353	1,670	1,662	1,632	1,581
29	34	24	36	31	10	7	11	11	20	20	19	23	14	25	18	27
5	8	6	7	9	8	5	9	6	3	6	11	1	5	3	7	5
131	126	122	141	123	139	132	123	130	144	167	151	187	198	155	193	199
170	212	170	203	217	202	207	245	308	238	249	277	299	351	312	336	346
73	108	113	99	124	99	117	115	116	128	120	146	190	193	217	191	168
110	119	104	140	140	127	99	92	74	90	106	123	150	156	164	191	191
233	261	230	427	326	364	333	285	194	232	217	220	337	267	283	268	284
29	27	25	35	28	26	29	43	46	46	48	57	77	85	85	85	69
1	9	1	3	1	4	1	1	2	.....	1	.....	5	3	3	1	2
5	15	8	9	7	5	5	6	12	11	15	5	11	18	15	16	27
11	17	9	9	12	8	13	22	14	8	11	16	12	17	24	16	23
.....
476	440	371	390	426	498	454	455	515	523	617	566	857	844	853	834	671
13	19	23	21	23	18	24	26	22	27	28	34	36	29	41	35	30
116	122	143	161	193	152	178	188	206	217	201	232	233	254	223	246	241
52	62	47	40	42	47	42	41	41	52	56	58	69	84	79	90	78
119	93	91	104	106	90	119	102	97	105	107	106	126	145	128	142	131
.....	.....	7	3	2	1	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
4	3	1	5	2	.....	1	5	.....	2	5	.....	2	3	1	3	4
12	12	8	13	6	12	11	15	18	15	27	19	18	8	18	26	18
37	18	24	20	34	40	33	30	48	51	59	43	87	70	57	56	32
188	202	188	217	209	207	171	195	288	300	137	249	376	247	152	207	213

TABLE X.—*Causes of Deaths Registered in Rhode Island*

Class.	CAUSES OF DEATH.*	1877.	1878.	1879.	1880.	1881.	1882	1883.
	ALL CAUSES.....	4,692	4,689	4,688	5,021	5,280	5,327	5,535
	SPECIFIED CAUSES.....	4,444	4,430	4,386	4,742	4,878	5,011	5,327
	[CLASSES.]							
I.	ZYMOTIC DISEASES.....	1,819	2,000	1,867	1,970	1,877	1,776	1,839
II.	CONSTITUTIONAL DISEASES.....	231	185	221	205	239	213	260
III.	LOCAL DISEASES.....	1,217	1,126	1,245	1,288	1,461	1,553	1,770
IV.	DEVELOPMENTAL DISEASES.....	1,015	960	926	1,122	1,119	1,254	1,273
V.	VIOLENT DEATHS.....	162	159	127	157	182	215	185
	[GROUPS.]							
I.	1. COMMUNICABLE DISEASES.....	1,794	1,978	1,849	1,949	1,846	1,742	1,795
	2. DIETIC DISEASES.....	17	16	16	21	29	32	42
	3. PARASITIC DISEASES.....	8	6	2	....	2	2	2
II.	1. DIATHETIC DISEASES.....	231	185	221	205	239	213	260
	DISEASES OF—							
III.	1. NERVOUS SYSTEM.....	375	361	414	415	481	484	500
	2. ORGANS OF CIRCULATION.....	187	172	208	237	271	252	333
	3. RESPIRATORY ORGANS.....	191	206	203	210	238	214	248
	4. DIGESTIVE ORGANS.....	335	264	270	278	324	437	445
	5. URINARY ORGANS.....	98	92	113	119	110	118	173
	6. ORGANS OF GENERATION.....	4	1	....	7	3	6	26
	7. ORGANS OF LOCOMOTION.....	15	10	20	15	11	25	26
	8. INTEGUMENTARY SYSTEM.....	12	20	17	7	23	17	19
	9. ORGANS OF SPECIAL SENSE. EYE AND EAR.....	....	....	....	....	....	....	....
	DEVELOPMENTAL DISEASES OF—							
IV.	1. CHILDREN.....	684	648	591	706	752	843	824
	2. WOMEN.....	29	26	36	36	38	22	44
	3. OLD PEOPLE.....	213	222	220	273	247	283	275
	4. DISEASES OF NUTRITION.....	89	64	79	107	82	106	130
V.	1. ACCIDENT OR NEGLIGENCE.....	137	135	113	146	155	178	157
	2. BATTLE.....	....	....	....	....	....	....	....
	3. HOMICIDE.....	3	3	1	1	4	6	3
	4. SUICIDE.....	22	21	13	10	23	31	25
	—							
	CAUSES ILL-DEFINED.....	56	49	48	46	55	45	22
	—							
	CAUSES NOT STATED.....	192	210	254	233	347	271	186

*Still-born included in this table.

For each of the Forty-Six Years, 1853 to 1898.—Continued.

1884.	1885.	1886.	1887.	1888.	1889.	1890.	1891.	1892.	1893.	1894.	1895.	1896.	1897.	1898.	TOTAL AND PER- CENTAGE FOR 45 YEARS 1853-1897.	
5.413	5.660	6.142	6.616	6.889	6.588	7.230	6.892	7.739	7.852	7.552	7.902	7.928	7.533	7.318	209,696	100.00
5.352	5.544	6.052	6.562	6.815	6.500	7.142	6.823	7.677	7.753	7.495	7.819	7.853	7.488	7.271	200,548	95.64
1.803	1.924	2.121	2.391	2.335	2.025	2.427	2.301	2.464	2.548	2.425	2.563	2.427	2.292	2.039	73,571	35.09
253	296	262	264	307	312	299	283	305	325	291	300	285	304	315	8,796	4.19
1.705	1.863	2.013	2.174	2.258	2.274	2.356	2.331	2.596	2.701	2.672	2.814	2.870	2.818	2.897	61,406	29.29
1.370	1.260	1.443	1.506	1.699	1.646	1.789	1.731	1.980	1.891	1.819	1.812	1.985	1.758	1.668	49,098	23.41
221	201	213	224	216	243	271	274	332	288	288	330	336	361	399	7,677	3.66
1.763	1.877	2.084	2.347	2.294	1.949	2.365	2.130	2.405	2.465	2.366	2.525	2.381	2.248	1.983	72,004	34.31
38	47	35	46	40	74	61	69	59	82	58	38	46	44	56	1,395	.67
2	.....	2	1	1	2	1	2	.....	1	1	.....	.....	.....	.....	172	.08
253	296	262	264	307	312	299	283	305	325	291	300	285	304	315	8,796	4.19
506	527	598	613	642	554	612	607	660	682	748	790	700	843	784	17,335	8.26
293	358	333	411	442	467	413	485	509	535	476	535	556	570	551	10,735	5.12
234	299	305	346	363	402	423	378	465	438	363	383	371	294	283	9,311	4.44
421	393	495	527	516	541	553	513	595	628	600	581	595	560	647	16,076	7.67
178	215	222	220	244	272	300	300	325	377	397	431	472	471	547	6,186	2.95
14	14	12	14	10	10	8	15	15	20	32	43	53	38	36	409	.29
32	31	26	23	15	18	25	20	17	14	19	23	22	18	12	652	.31
27	23	22	20	26	10	22	13	10	5	27	17	36	16	33	666	.32
.....	.....	.....	.....	.....	.....	.....	.....	.....	2	10	11	5	8	4	36	.02
912	843	1,000	1,053	1,217	1,161	1,325	1,309	1,436	1,467	1,497	1,490	1,598	1,457	1,408	34,851	16.62
39	28	31	29	33	27	26	23	47	50	62	40	44	48	49	1,301	.62
293	267	276	278	290	227	198	185	256	183	187	282	293	253	211	9,125	4.35
126	122	136	146	159	231	240	217	241	191	73	.....	.....	.....	.....	3,821	1.82
197	178	194	206	190	216	250	233	309	264	231	293	296	261	296	6,703	3.20
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	14	.01
2	3	2	2	5	3	2	1	4	3	9	6	2	12	13	137	.06
22	20	17	16	21	21	19	40	19	21	45	31	38	41	46	823	.39
19	57	39	35	46	49	45	35	31	31	2	31	46	20	20	1,680	.80
42	59	51	19	28	39	43	31	28	68	55	52	29	25	24	7,468	3.56

TABLE X.—Continued.

Class.	CAUSES OF DEATH.	1853.	1854.	1855.	1856.	1857.	1858.	1859.
I.	GROUP 1.							
	1. Varicella.....							
	2. Fever, Typhus.....							
	3. Measles.....		15	3	2	6	75	3
	4. Scarlet Fever.....	108	46	71	208	147	234	71
	5. Small Pox*.....	14	11	5	9		1	5
	6. Diphtheria.....						6	20
	7. Quinsy†.....							
	8. Tonsillitis.....							
	9. Carbuncle.....				1		1	1
	10. Erysipelas.....	3	8	15	12	14	20	15
	11. Fever, Puerperal.....	2	2	6	10	8	7	11
	12. Septicæmia.....							
	13. Glanders.....							
	14. Hydrophobia.....	1			1			1
	15. Malignant Postule.....			1			1	6
	16. Meningitis, Cerebro-Spinal.....							
	17. Tetanus.....		3	3	4	6	1	3
	18. Cholera.....							
	19. Fever, Malarial.....				1			
	20. Fever, Remittent‡.....	1		2	3	2	4	1
	21. Fever, Typhoid§.....	25	39	63	53	76	42	70
	22. Influenza.....	2	1	4		15	6	2
	23. Parotitis.....							
	24. Pertussis.....	2	14	4	19	9	13	46
	25. Pneumonia.....	48	54	79	120	141	166	125
	26. Gonorrhœa.....							
	27. Syphilis.....	1			2		3	5
	28. Hydrocephalus (Tubercular Meningitis).....	33	40	58	47	52	65	56
	29. Scrofula.....	6	5	8	7	11	11	8
	30. Tabes Mesenterica.....					4	6	2
	31. Tubercular Enteritis.....					4		
	32. Tubercular Meningitis.....							
	33. Tubercular Peritonitis.....							
	34. Tuberculousis, General.....		1					
35. Tuberculosis, Pulmonary.....	243	349	345	305	400	426	436	
	GROUP 2.							
	1. Alcoholism—Delirium Tremens, Intemperance.....	14	10	7	13	25	21	22
	2. Inanition.....		1		1			
3. Purpura and Scurvy.....			1	1	4	5	1	
	GROUP 3.							
	1. Thrush.....	1	4	5	1	3	9	3
2. Worms.....		1	1		1	1	2	
II.	GROUP 1.							
	1. Gout.....							
	2. Dropsy.....	45	31	32	50	48	44	41
	3. Anæmia.....	2	6	4	4	6	12	2
	4. Cancer.....	13	18	27	26	37	44	43
	5. Noma (Canker).....	1					1	
	6. Mortification (Gangrene).....	4	2	3	4	8	7	3
7. Rheumatism.....	2	1	2	4	7	4	7	
III.	GROUP 1.							
	1. Cephalitis.....	28	19	26	19	25	42	20
	2. Apoplexy and Paralysis. }.....	22	25	33	39	42	43	51
	3. Insanity.....	12	6	20	9	21	21	28
	4. Chorea.....	4	6	8	14	16	14	16
	5. Epilepsy.....					1		2
	6. Brain Diseases, etc.....	4		8	6	8	9	6
	7. Nerve Diseases.....	31	34	31	30	45	36	41
	GROUP 2.							
	1. Pericarditis.....		2	1	1	2		1
2. Aneurism.....	1		1	1		1	1	
3. Heart Diseases, etc.....	28	38	63	41	65	66	62	

* Includes 8 cases of Chicken Pox. † Includes Mumps. ‡ Includes Yellow Fever.
§ Includes Billious, Typhus, and Continued Fevers.

TABLE X.—Continued.

Class.	CAUSES OF DEATH.	1877.	1878.	1879.	1880.	1881.	1882.	1883.
I.	GROUP 1.							
	1. Varicella.....	.....	.....	.....	.....	.....	.....	.....
	2. Fever, Typhus.....	.....	.....	.....	.....	.....	.....	.....
	3. Measles.....	11	81	.....	9	37	6	14
	4. Scarlet Fever.....	62	86	311	468	138	45	34
	5. Small Pox*.....	5	1	1	.....	3	2	2
	6. Diphtheria.....	492	435	259	152	216	101	95
	7. Quinsy†.....	4	3	.....	1	2	.....	3
	8. Tonsillitis.....	.....	.....	.....	.....	.....	.....	.....
	9. Carbuncle.....	3	.....	1	.....	2	1	3
	10. Erysipelas.....	21	17	25	17	37	30	28
	11. Fever, Puerperal.....	17	17	9	15	22	28	16
	12. Septicæmia.....	.....	3	2	.....	1	.....	3
	13. Glanders.....	1	.....	.....	.....	.....	.....	.....
	14. Hydrophobia.....	2	3	.....	.....	.....	.....	.....
	15. Malignant Postule.....	2	.....	.....	.....	1	1	.....
	16. Meningitis, Cerebro-Spinal.....	8	11	10	20	18	28	26
	17. Tetanus.....	5	8	6	3	8	8	8
	18. Cholera.....	.....	.....	.....	.....	.....	.....	.....
	19. Fever, Malarial.....	1	.....	.....	.....	1	8	21
	20. Fever, Remittent‡.....	.....	1	2	4	9	.....	.....
	21. Fever, Typhoid§.....	123	136	101	141	117	214	239
	22. Influenza.....	1	.....	4	.....	3	1	.....
	23. Parotitis.....	.....	.....	.....	.....	.....	.....	.....
	24. Pertussis.....	32	54	43	20	68	71	9
	25. Pneumonia.....	226	317	311	364	327	344	400
	26. Gonorrhœa.....	2	.....	.....	.....	2	.....	.....
	27. Syphilis.....	10	4	10	10	4	16	18
	28. Hydrocephalus (Tubercular Meningitis).....	55	70	57	46	56	49	54
	29. Scrofula.....	11	13	13	12	15	14	22
	30. Tabes Mesenterica.....	10	6	3	3	8	4	5
	31. Tubercular Enteritis.....	.....	.....	.....	.....	.....	.....	.....
	32. Tubercular Laryngitis.....	.....	.....	.....	.....	.....	.....	.....
	33. Tubercular Meningitis.....	.....	.....	.....	.....	.....	.....	.....
	34. Tuberculosis, General.....	25	27	36	12	39	27	29
35. Tuberculosis, Pulmonary.....	665	685	645	652	712	744	766	
	GROUP 2.							
	1. Alcoholism—Delirium Tremens, Intemperance.....	12	15	15	15	24	27	29
	2. Inanition.....	.....	.....	.....	.....	2	1	10
3. Purpura and Scurvy.....	5	1	1	6	3	4	3	
	GROUP 3.							
	1. Thrush.....	8	4	1	.....	1	2	2
2. Worms.....	.....	2	1	.....	1	.....	.....
II.	GROUP 1.							
	1. Gout.....	.....	.....	.....	.....	.....	.....	.....
	2. Dropsy.....	63	38	50	37	47	50	47
	3. Anæmia.....	1	2	8	8	4	4	7
	4. Cancer.....	135	119	125	125	145	132	169
	5. Noma (Canker).....	.....	1	1	2	.....	.....	1
	6. Mortification (Gangrene).....	8	9	13	9	14	6	9
7. Rheumatism.....	24	16	24	24	29	21	27	
III.	GROUP 1.							
	1. Cephalitis.....	81	81	79	88	107	95	91
	2. Apoplexy and Paralysis. {	109	102	137	119	146	154	157
	3. Insanity.....	72	86	83	96	101	111	118
	4. Chorea.....	12	22	17	19	32	23	29
	5. Epilepsy.....	1	.....	.....	3	.....	.....	1
	6. <i>Brain Diseases, etc.</i>	19	8	13	14	13	14	18
	7. <i>Nerve Diseases.</i>	81	62	85	76	82	87	86

	GROUP 2.							
	1. Pericarditis.....	.....	.....	.....	.....	.....	.....	17
	2. Aneurism.....	4	6	1	2	2	2	8
3. <i>Heart Diseases, etc.</i>	183	166	207	235	269	250	308	

* Includes 8 cases of Chicken Pox. † Includes Mumps. ‡ Includes Yellow Fever.
§ Includes Bilious, Typhus, and Continued Fevers.

TABLE X.—Continued.

Class.	CAUSES OF DEATH.	1853.	1854.	1855.	1856.	1857.	1858.	1859.
III.	GROUP 3.							
	1. Epistaxis.....	.....	.....	.....	.....	.....	.....	.....
	2. Laryngitis.....	2	1	1	5	2	5	4
	3. Bronchitis.....	2	3	4	5	7	13	9
	4. Pleurisy.....	7	10	12	13	10	12	18
	5. Croup.....	27	43	48	62	70	69	58
	6. Asthma.....	1	2	2	3	2	2	2
	7. Lung Diseases, etc.....	7	3	5	5	2	.....	3
	GROUP 4.							
	1. Gastritis.....	.....	3	3	8	9	1	4
	2. Enteritis.....	11	11	13	14	13	23	21
	3. Peritonitis.....	4	2	13	17	5	10	13
	4. Ascites.....	.....	3	.....	.....	.....	.....	.....
	5. Ulceration of Intestines.....	.....	.....	.....	.....	.....	.....	.....
	6. Hernia.....	1	2	2	.....	.....	5	1
	7. Ileus (Appendicitis).....	2	3	10	10	9	6	6
	8. Intussusception.....	.....	.....	.....	.....	.....	.....	1
	9. Stricture of Intestines.....	.....	.....	1	.....	2	.....	.....
	10. Fistula.....	.....	.....	.....	.....	.....	1	.....
11. Stomach Diseases.....	5	5	4	11	7	8	8	
12. Pancreas Diseases.....	.....	.....	.....	.....	.....	.....	.....
13. Hepatitis.....	.....	.....	.....	.....	.....	.....	5	
14. Jaundice.....	3	5	2	.....	3	4	3	
15. Liver Diseases, etc.....	4	6	6	7	18	31	20	
16. Spleen Diseases, etc.....	.....	2	.....	.....	.....	.....	.....
17. Bowel Diseases, etc.....	4	4	3	.....	2	4	5	
18. Diarrhœa (Cholera Morbus).....	20	215	58	40	55	44	55	
19. Dysentery.....	88	118	71	51	65	61	53	
GROUP 5.								
1. Nephritis (Bright's Disease, etc.).....	1	.....	.....	.....	.....	.....	3	
2. Ischuria.....	.....	.....	2	.....	2	.....	.....
3. Diabetes.....	1	.....	3	3	3	3	3	
4. Calculus (Gravel, etc.).....	.....	1	.....	.....	.....	2	1	
5. Cystitis.....	1	1	1	2	.....	.....	4	
6. Prostate Disease.....	.....	1	.....	.....	5	2	.....
7. Kidney Diseases, etc.....	1	1	5	5	13	8	12	
8. Bladder Diseases, etc.....	2	.....	2	.....	3	2	.....
GROUP 6.								
1. Diseases of Male Organs of Generation.....	.....	.....	.....	.....	.....	.....	.....
2. Ovarian Diseases.....	.....	.....	2	3	.....	4	.....
3. Uterine Diseases, etc.....	5	4	1	2	2	3	.....
GROUP 7.								
1. Arthritis.....	.....	.....	.....	.....	.....	.....	.....
2. Joint Diseases, etc.....	3	1	2	7	6	6	9	
GROUP 8.								
1. Phlegmon.....	2	.....	7	4	3	2	1	
2. Ulcer.....	.....	2	.....	1	2	.....	.....
3. Skin Diseases, etc.....	.....	1	2	2	4	1	1	
GROUP 9.								
1. Eye and Ear.....	.....	.....	.....	.....	.....	.....	.....
IV.	GROUP 1.							
	1. Stillborn.....	41	78	124	183	185	177	177
	2. Cholera Infantum.....	39	68	91	77	70	93	61
	3. Convulsions.....	29	68	53	64	57	57	50
	4. Cyanosis.....	.....	1	1	1	.....	.....	.....
	5. Debility (Infantile), Premature Birth, etc.....	2	13	34	17	17	33	25
	6. Teething.....	8	20	28	15	35	29	31
	7. Hemorrhage, Umbilical.....	.....	.....	.....	.....	.....	.....	.....
	8. Icterus Neonatorum.....	.....	.....	.....	.....	.....	.....	.....
	9. Indigestion.....	.....	.....	.....	.....	.....	.....	.....
	10. Innutrition.....	.....	.....	.....	.....	.....	.....	.....
	11. Spina Bifida.....	2	.....	.....	.....	.....	2	.....
	12. Other Malformations.....	1	7	11	5	12	12	14

Causes of Deaths Registered in Rhode Island.

1860.	1861.	1862.	1863.	1864.	1865.	1866.	1867.	1868.	1869.	1870.	1871.	1872.	1873.	1874.	1875.	1876.
8	2	1	1	1	1	1	1	2	4	2	2	2	4	3	4	2
18	18	7	17	7	10	17	19	22	20	28	21	26	29	40	58	57
20	21	17	14	16	16	20	16	13	19	12	18	12	14	10	10	9
57	58	76	97	105	94	53	50	30	41	53	72	66	68	65	96	102
3	8	3	8	7	3	4	4	5	3	8	4	4	7	10	10	7
4	12	...	3	4	3	4	2	2	3	3	3	40	34	36	13	14
11	...	4	8	11	6	2	9	7	9	10	...	16	10	8	28	13
23	24	30	27	27	20	30	34	19	25	29	36	15	24	37	29	36
14	7	14	5	19	13	13	11	9	6	8	11	24	17	20	28	24
2	5	4	7	2	5	1	6	5	4	6	7	2	4	6	1	7
16	9	7	5	5	7	9	11	6	8	5	13	3	5	1	...	8
1	...	...	...	1	1	1	2	1	1	1	...	1	2	...	...	...
1	...	...	1	...	...	...	...	...	...	...	...	...	1	...	1	...
9	17	8	12	4	2	4	8	7	2	8	14	13	15	33	13	10
9	...	6	...	4	4	7	5	4	6	6	...	2	...	...	...	5
7	4	5	2	3	3	6	3	4	3	2	...	2	2	4	4	1
31	31	32	34	37	20	37	30	23	28	37	35	31	43	36	43	39
...	...	1	...	1	...	1	...	2	2	...	...	2	2	1	1	...
12	4	2	2	1	4	1	...	2	3	4	1	27	29	26	11	5
48	64	66	61	102	90	74	47	55	61	46	60	118	77	73	73	86
49	96	52	262	110	188	148	118	52	74	55	43	83	36	38	36	50
1	...	...	...	...	...	8	17	16	18	15	24	37	39	42	40	38
8	8	2	4	6	6	6	1	11	6	8	5	7	8	5	11	5
1	...	1	4	2	2	2	3	3	3	1	4	5	2	4	2	1
2	...	4	4	...	...	...	...	...	...	...	...	...	...	...	...	...
1	1	...	...	2	2	2	...	3	1	2	2	4	...	3	...	4
15	15	17	22	16	13	8	15	8	14	16	19	18	27	24	25	12
...	3	1	1	4	2	5	7	5	4	6	3	8	5	10	4	9
...	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1	7	1	3	1	4	1	1	2	...	1	...	5	3	3	1	2
5	15	8	9	7	5	5	6	12	11	15	5	11	18	15	16	27
7	11	4	7	9	8	8	15	10	4	9	11	10	10	18	9	18
3	...	3	...	1	...	2	3	2	4	2	2	1	5	3	3	3
1	6	2	2	2	1	3	4	2	...	...	3	1	2	3	4	2
...
167	146	123	111	138	177	172	163	212	220	234	223	202	228	277	246	224
151	126	106	114	133	145	110	117	154	151	223	172	301	285	265	318	250
70	70	55	71	73	73	83	68	63	79	85	83	116	97	98	100	89
...	...	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...
42	45	35	47	46	62	54	60	47	34	57	53	100	169	154	135	75
31	40	39	34	28	31	23	30	23	24	34	20	31	50	42	20	22
...
...	3	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
15	10	11	13	8	10	12	17	16	15	14	15	17	15	17	15	11

TABLE X.—Continued.

Class.	CAUSES OF DEATH.	1877.	1878.	1879.	1880.	1881.	1882.	1883.
III.	GROUP 3.							
	1. Epistaxis.....	2	2	2	8	6	7	5
	2. Laryngitis.....	73	80	67	94	86	101	111
	3. Bronchitis.....	5	8	13	17	9	8	13
	4. Pleurisy.....	95	98	96	66	101	77	71
	5. Croup.....	8	8	13	11	16	9	14
	6. Asthma.....	8	15	12	14	20	12	34
	7. Lung Diseases, etc.....							
	GROUP 4.							
	1. Gastritis.....	22	14	17	18	27	30	35
	2. Enteritis.....	39	40	34	33	44	75	47
	3. Peritonitis.....	17	22	24	24	27	30	40
	4. Ascites.....							1
	5. Ulceration of Intestines.....							4
	6. Hernia.....	5	7	12	8	10	11	7
	7. Ileus (Appendicitis).....	8	12	9	9	10	8	11
	8. Intussusception.....		3	2		5	5	3
	9. Stricture of Intestines.....							1
	10. Fistula.....							
11. Stomach Diseases.....	7	13	13	10	12	14	16	
12. Pancreas Diseases.....								
13. Hepatitis.....	6	5	5	6	8	8	7	
14. Jaundice.....	7	4	3	3	3	8	6	
15. Liver Diseases, etc.....	39	40	44	49	35	50	38	
16. Spleen Diseases, etc.....	2	1					20	
17. Bowel Diseases, etc.....	1	4	2	9	6	6	20	
18. Diarrhoea (Cholera Morbus).....	130	59	61	81	95	124	155	
19. Dysentery.....	52	40	44	28	42	68	54	
GROUP 5.								
1. Nephritis (Bright's Disease, etc.).....	46	54	61	56	54	44	93	
2. Ischuria.....							2	
3. Diabetes.....	9	4	15	15	16	13	15	
4. Calculus (Gravel, etc.).....	9	1	1		1		1	
5. Cystitis.....							8	
6. Prostate Disease.....	2	4	4	4	1	3	7	
7. Kidney Diseases, etc.....	21	27	20	35	25	44	36	
8. Bladder Diseases, etc.....	11	2	12	9	13	14	11	
GROUP 6.								
1. Diseases of Male Organs of Generation.....								
2. Ovarian Diseases.....							6	
3. Uterine Diseases, etc.....	4	1		7	3	6	20	
GROUP 7.								
1. Arthritis.....								
2. Joint Diseases, etc.....	15	10	20	15	11	25	26	
GROUP 8.								
1. Phlegmon.....	7	13	14	5	17	14	18	
2. Ulcer.....	2	2			3	2	1	
3. Skin Diseases, etc.....	3	5	3	2	3	1		
GROUP 9.								
1. Eye and Ear.....								
IV.	GROUP 1.							
	1. Stillborn.....	242	248	216	192	264	253	253
	2. Cholera Infantum.....	239	168	161	247	240	325	242
	3. Convulsions.....	83	112	104	133	102	110	126
	4. Cyanosis.....				3			17
	5. Debility (Infantile), Premature Birth, etc.....	67	72	69	93	92	101	137
	6. Teething.....	27	16	32	25	28	33	30
	7. Hemorrhage, Umbilical.....							
	8. Icterus Neonatorum.....							
	9. Indigestion.....							
	10. Innutrition.....							
	11. Spina Bifida.....							
	12. Other Malformations.....	26	32	19	13	26	21	19

Causes of Deaths Registered in Rhode Island.

1881.	1885.	1886.	1887.	1888.	1889.	1890.	1891.	1892.	1893.	1894.	1895.	1896.	1897.	1898.	TOTAL AND PER- CENTAGE FOR 45 YEARS, 1853-1897.	
....	....	....	1	2	....	1	1	....	....	....	....	....	....	....	5	....
11	9	9	8	7	6	5	3	12	7	12	9	17	15	3	223	.11
118	168	174	176	228	260	275	247	308	315	254	274	276	226	236	4,371	2.08
5	7	12	15	18	23	18	26	34	22	24	38	32	18	19	701	.31
80	94	90	113	79	80	83	67	89	50	32	30	24	17	9	3,087	1.47
10	21	15	20	18	16	23	28	12	17	21	24	21	17	12	454	.22
10	....	5	13	11	17	18	6	10	27	20	8	1	1	4	467	.22
27	20	30	34	37	42	38	25	53	47	43	62	52	62	76	924	.44
76	64	85	43	88	78	63	71	73	68	175	194	197	180	176	2,338	1.12
40	35	59	66	60	63	63	68	62	74	31	....	....	....	....	1,112	.53
2	....	2	....	1	7	2	3	3	5	....	....	....	....	....	29	.01
1	....	1	5	3	1	....	7	4	....	8	....	....	2	8	37	.02
11	10	15	13	11	10	16	16	22	15	15	19	8	14	28	340	.16
8	17	13	15	22	30	20	18	21	16	17	24	29	25	45	506	.24
5	4	1	....	3	2	2	6	2	11	4	7	7	8	8	93	.04
....	2	1	2	....	1	1	....	3	3	....	4	....	....	....	25	.01
16	22	29	34	24	33	35	32	14	17	19	23	15	19	17	644	.31
10	6	9	9	....	7	7	....	1	....	1	....	....	2	1	12	.01
5	9	2	12	12	11	15	16	13	10	11	5	15	7	7	252	.12
40	47	60	65	53	63	56	55	61	72	73	70	69	49	80	1,787	.85
2	....	1	1	1	....	....	....	....	....	1	3	1	....	1	24	.01
7	8	10	10	10	7	14	15	17	71	46	37	85	76	87	617	.29
131	104	110	151	110	114	131	112	160	162	105	79	58	62	60	3,982	1.90
40	36	66	66	77	71	87	59	71	42	41	41	31	45	38	3,098	1.48
90	143	140	130	192	176	213	229	220	258	266	314	369	379	457	3,826	1.82
....	....	....	....	....	....	1	2	2	....	3	....	....	....	....	16	.01
25	21	24	22	13	32	27	26	37	40	38	40	41	48	39	644	.31
....	1	....	1	1	5	2	2	....	4	5	6	3	4	2	91	.04
7	12	23	17	10	18	36	15	18	22	21	16	21	16	19	278	.13
4	4	8	7	4	1	2	8	5	3	10	15	10	7	12	147	.07
39	25	24	39	21	34	16	16	39	44	47	31	27	8	14	947	.45
13	9	3	4	3	6	3	2	4	6	10	6	1	9	4	237	.11
12	8	8	5	5	4	4	8	6	9	14	17	16	8	12	141	.07
2	6	4	9	5	6	4	7	8	11	18	24	37	30	24	265	.13
32	34	26	22	15	17	23	19	15	9	18	23	22	18	12	13	.01
....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	639	.30
18	21	13	15	19	7	13	6	5	....	1	7	24	13	29	436	.21
4	....	6	1	....	....	2	4	1	....	....	....	....	....	....	70	.03
5	2	3	4	7	3	7	3	4	5	26	10	12	3	4	160	.08
....	....	....	....	....	....	....	....	....	2	10	11	5	8	4	36	.02
272	271	293	276	295	329	296	272	343	412	392	367	424	423	413	10,561	5.04
325	279	377	355	467	427	582	546	633	603	496	500	545	425	468	11,892	5.67
139	111	121	159	154	136	156	137	162	151	147	120	102	65	49	4,381	2.09
5	6	11	10	16	11	14	23	19	21	27	27	20	31	24	266	.13
128	132	157	211	230	195	225	251	245	224	373	339	383	366	248	5,446	2.59
21	29	26	24	35	44	27	52	18	27	34	28	....	3	....	1,237	.59
....	....	....	....	....	....	....	....	....	5	5	18	8	6	2	42	.02
....	....	....	....	....	....	....	....	....	....	....	5	7	6	9	18	.01
....	....	....	....	....	....	....	....	....	....	....	23	40	63	75	126	.06
....	....	....	....	....	....	....	....	....	....	....	31	37	39	85	107	.05
....	....	....	....	....	....	....	....	....	....	....	8	5	11	9	68	.03
22	15	15	18	16	15	19	20	15	19	15	27	21	21	26	707	.33

TABLE X.—Continued.

Class.	CAUSES OF DEATH.	1853.	1854.	1855.	1856.	1857.	1858.	1859.
IV.	GROUP 2.							
	1. Paramenia.....	.....	.....	.....	.....	.....	.....	.....
	2. Childbirth.....	10	7	9	14	13	24	14
	GROUP 3.							
	1. Old Age.....	58	67	84	76	119	114	117
	GROUP 4.							
1. Atrophy and Debility.....	18	28	47	58	53	55	48	
V.	GROUP 1. (ACCIDENTS OR NEGLIGENCE.)							
	1. Fractures and Contusions*.....	1	1	.....	4	.....	.....	.....
	2. Burns and Scalds.....	9	9	14	12	7	6	13
	3. Drowning.....	13	15	18	13	20	24	24
	4. Falls.....	.....	.....	.....	.....	.....	.....	.....
	5. Poison.....	1	3	6	4	3	5	4
	6. Suffocation and Strangulation.....	2	2	.....	7	3	.....	1
	7. Otherwise.....	31	23	19	16	40	38	37
	GROUP 2.							
	1. Battle.....	.....	.....	.....	.....	.....	.....	.....
	GROUP 3.							
	1. Homicide.....	3	.....	9	1	1	1	1
	GROUP 4.							
	1. Suicide.....	3	3	8	4	8	13	9
	Causes ill-defined.....	15	20	19	14	30	14	22
Causes not stated.....	100	131	169	292	258	296	241	

* Includes railroad accidents.

Causes of Deaths Registered in Rhode Island.

1860.	1861.	1862.	1863.	1864.	1865.	1866.	1867.	1868.	1869.	1870.	1871.	1872.	1873.	1874.	1875.	1876.
.....	.....	1	.....	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
13	19	22	21	21	18	24	26	22	27	28	31	36	29	41	35	30
116	132	143	161	193	152	178	188	206	217	201	232	223	251	223	216	211
52	62	47	40	42	47	42	41	41	52	56	58	69	81	79	90	78
.....	.....	.....	.....	.....	.....	12	8	8	6	9	12	15	16	16	12	10
24	21	14	10	12	16	18	16	16	15	12	12	12	14	23	17	12
32	29	29	21	26	20	27	23	20	24	30	24	29	36	39	35	37
.....	.....	.....	.....	.....	.....	17	14	18	21	19	25	18	15	12	20	12
7	9	2	1	3	2	6	2	.....	4	4	2	1	5	5	6	4
1	3	3	1	1	1	.....	.....	.....	.....	.....	.....	.....	4	6	5	9
55	31	43	71	64	51	39	39	35	35	33	31	51	55	27	47	47
.....	.....	7	3	2	1	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
4	3	1	5	2	.....	1	5	.....	2	5	.....	2	3	4	3	4
12	12	8	13	6	12	11	15	18	15	27	19	18	8	18	26	18
37	18	21	20	34	40	33	30	48	51	59	43	87	70	57	56	32
188	202	188	217	209	207	171	195	288	300	137	249	376	217	152	207	213

TABLE X.—Continued.

CLASS.	CAUSES OF DEATH.	1877.	1878.	1879.	1880.	1881.	1882.	1883.	
IV.	GROUP 2.								
	1. Paramenia.....	....	....	1	....	....	....	2
	2. Childbirth.....	29	26	35	36	38	22	42	
	GROUP 3.								
	1. Old Age.....	213	222	220	273	247	283	275	
	GROUP 4.								
	1. Atrophy and Debility.....	89	64	79	107	82	106	130	
	V.	GROUP 1. (ACCIDENTS OR NEGLIGENCE.)							
		1. Fractures and Contusions*.....	13	7	10	18	20	16	16
		2. Burns and Scalds.....	18	11	13	21	16	17	18
3. Drowning.....		30	44	22	33	29	40	27	
4. Falls.....		14	13	16	14	19	31	24	
5. Poison.....		9	6	7	5	9	7	10	
6. Suffocation and Strangulation.....		5	....	....	....	19	8	12
7. Otherwise.....		48	54	45	55	43	59	53	
GROUP 2.									
1. Battle.....		....	....	....	....	....	....	....
GROUP 3.									
1. Homicide.....	3	3	1	1	4	6	3		
GROUP 4.									
1. Suicide.....	22	21	13	10	23	31	25		
—									
Causes ill-defined.....	56	49	48	46	55	45	22		
Causes not stated.....	192	210	254	233	347	271	186		

* Includes railroad accidents.

Causes of Deaths Registered in Rhode Island.

1884.	1885.	1886.	1887.	1888.	1889.	1890.	1891.	1892.	1893.	1894.	1895.	1896.	1897.	1898.	TOTAL AND PER- CENTAGE FOR 45 YEARS, 1853-1897.	
4	2	....	1	....	....	....	1	2	....	....	....	4	3	....	23	.01
35	26	31	28	33	27	26	22	45	50	62	40	40	45	49	1,278	.61
293	267	276	278	290	227	198	185	256	183	187	197	206	159	161	9,125	4.35
126	122	136	146	159	231	240	217	241	191	73	85	87	94	50	3,821	1.82
16	15	20	47	33	48	57	59	89	25	19	36	....	....	....	694	.33
20	19	23	17	27	20	20	18	21	26	28	28	25	41	21	781	.37
41	42	58	39	46	52	71	52	48	47	52	61	39	40	60	1,521	.72
31	25	19	17	18	31	32	21	33	25	28	57	48	64	58	768	.37
8	9	6	7	12	7	11	16	23	14	6	8	8	7	8	284	.14
11	10	10	14	8	9	12	17	26	14	21	22	24	22	19	313	.15
70	58	58	65	46	49	47	50	69	113	80	81	152	89	130	2,342	1.12
....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	14	.01
2	3	2	2	5	3	2	1	4	3	9	6	2	12	13	137	.06
22	20	17	16	21	24	19	40	19	21	45	31	38	41	46	823	.39
19	57	39	35	46	49	45	35	34	31	2	31	46	20	24	1,680	.80
42	59	51	19	28	39	43	31	28	68	55	52	29	25	20	7,468	3.56

TABLE XI.—OCCUPATIONS AND AGES OF DECEDENTS.

Showing the Number and Occupation of Decedents for the year 1898, and for a period of Forty-Six Years and Seven Months, 1852 to 1898, inclusive. (Ages under Twenty excluded.)

OCCUPATIONS.	STATE OF RHODE ISLAND.					
	1898.			Forty-Six Years and Seven Months, June 1, 1852, to Dec. 31, 1898.		
	Total Mortality.	Aggregate Ages.	Average Age.	Total Mortality.	Aggregate Ages.	Average Age.
I.						
TILLERS OF THE SOIL.						
Farmers.....	173	12,218	70.62	6,883	462,054	67.13
Florists.....	2	94	47.00	60	3,302	55.03
Gardeners.....	12	701	58.42	294	17,250	58.67
Total.....	187	13,013	69.59	7,237	482,606	66.69
II.						
PROFESSIONAL AND PERSONAL.						
Actors.....	1	48	48.00	15	522	34.80
Aeronauts.....				1	23	23.00
Architects.....	1	68	68.00	15	871	58.07
Artists.....	1	72	72.00	38	1,954	51.42
Assayers and Analytical Chemists.....	2	153	76.50	7	455	65.00
Athletes.....				1	25	25.00
Authors.....				7	477	68.14
Ball Players.....				2	65	32.50
Chiropodists.....				1	58	58.00
Civil Engineers.....	2	83	41.50	52	2,587	49.75
Clergymen.....	19	1,221	64.26	267	17,045	63.84
Couriers.....	1	44	44.00	1	44	44.00
Dancing Masters.....	1	70	70.00	3	173	57.67
Dentists.....	3	120	40.00	43	2,247	52.26
Designers.....	2	115	57.50	22	1,117	50.77
Draughtsmen.....	2	93	46.50	14	473	33.79
Electricians.....	1	43	43.00	13	492	37.85
Inspectors.....	5	289	57.80	15	792	52.80
Inventors.....				15	991	66.07

TABLE XI.—OCCUPATIONS AND AGES.—Continued.

OCCUPATIONS.	STATE OF RHODE ISLAND.					
	1898.			Forty-Six Years and Seven Months, June 1, 1852, to Dec. 31, 1898.		
	Total Mortality.	Aggregate Ages.	Average Age.	Total Mortality.	Aggregate Ages.	Average Age.
Journalists (Editors and Reporters).....	3	141	47.00	43	2,009	46.72
Judges and Justices.....	1	66	66.00	16	1,047	65.44
Lawyers.....	5	272	54.40	176	9,918	56.35
Lecturers.....				2	108	54.00
Musicians.....	3	158	52.67	75	3,592	47.89
Nurses.....				14	743	53.07
Photographers and Lithographers.....	2	95	47.50	27	1,258	46.59
Physicians.....	7	419	59.86	323	19,347	59.90
Postmasters.....	1	28	28.00	2	68	34.00
Professors and Teachers..	3	197	65.67	144	7,139	49.58
Public Officers.....	1	63	63.00	87	5,195	59.71
Publishers.....				3	152	50.67
Scientists.....				1	60	60.00
Sculptors.....				2	80	40.00
Sheriffs and Policemen....	3	160	53.33	130	7,197	55.36
Stenographers.....				3	131	43.67
Students.....	2	59	29.50	83	1,895	22.83
Telephone and Telegraph Operators.....				24	731	30.46
Treasurers.....				3	147	49.00
Veterinary Surgeons.....				8	372	46.50
Weighers and Gaugers....	1	80	80.00	7	478	68.29
Total.....	73	4,157	56.95	1,705	92,078	54.00
III.						
OPTIONAL ACTIVITY.						
Agents and Canvassers....	5	297	59.40	221	11,439	51.76
Insurance.....	2	88	44.00	21	1,151	54.81
Real Estate.....	4	269	67.25	13	832	64.00
Auctioneers.....				6	274	45.67
Bankers and Brokers.....	4	243	60.75	148	8,762	59.20
Bank Officers.....	1	76	76.00	66	4,248	64.36
Bartenders.....	3	90	30.00	47	1,709	36.36
Booksellers.....				3	213	71.00
Bottlers.....	1	41	41.00	9	314	34.89
Butchers and Marketmen..	6	348	58.00	294	15,142	51.50

TABLE XI.—OCCUPATIONS AND AGES.—Continued.

OCCUPATIONS.	STATE OF RHODE ISLAND.					
	1898.			Forty-Six Years and Seven Months, June 1, 1852, to Dec. 31, 1898.		
	Total Mortality.	Aggregate Ages.	Average Age.	Total Mortality.	Aggregate Ages.	Average Age.
Carriage Dealers.....				2	113	56.50
Coal and Wood.....	1	75	75.00	12	684	57.00
Dry Goods.....	2	139	69.50	4	207	51.75
Fish and Oyster.....	1	42	42.00	21	1,261	60.05
Furniture.....	1	43	43.00	3	175	58.33
Grain.....				4	239	59.75
Hardware.....	2	155	77.50	5	316	63.20
Ice.....				3	132	44.00
Junk.....				13	714	54.92
Leather.....				2	81	40.50
Liquor.....	7	334	47.71	122	5,542	45.43
Lumber.....	1	63	63.00	16	895	55.94
News.....				3	179	59.67
Provision.....	2	128	64.00	20	1,140	57.00
Rubber.....				1	48	48.00
Shoe.....	2	64	32.00	12	623	51.92
Stove.....				2	152	76.00
Wool Waste.....				1	56	56.00
Clothiers.....				14	803	57.36
Collectors.....	1	81	81.00	26	1,497	57.58
Commercial Travelers.....	4	187	46.75	20	880	44.00
Contractors and Builders.....	7	495	70.71	116	6,870	59.22
Druggists and Apothecaries.....	5	239	47.80	110	8,019	72.90
Fruiterers.....				6	241	40.17
Grocers.....	15	846	56.40	449	24,415	54.38
Hotel and Innkeepers.....	6	314	52.33	175	9,569	54.68
Saloon and Restaurant.....	5	211	42.20	196	9,054	46.19
Stable.....	5	278	55.60	73	3,970	54.38
Store.....	7	319	45.57	39	2,007	51.46
Ice-cream Makers.....				3	151	50.33
Mail Carriers.....				12	530	44.17
Manufacturers.....	21	1,394	66.38	643	39,333	61.17
Merchants.....	48	2,893	60.27	1,306	76,714	58.74
Opticians.....				6	338	56.33
Organ and Piano Tuners.....				6	402	67.00
Policy Brokers.....				1	24	24.00
Pork and Meat Cutters and Packers.....	3	117	39.00	19	830	43.68
Railroad Officials.....	5	284	56.80	98	4,559	46.52
Ship Chandlers.....				5	318	63.60

TABLE XI.—OCCUPATIONS AND AGES.—Continued.

OCCUPATIONS	STATE OF RHODE ISLAND.					
	1898.			Forty-Six Years and Seven Months, June 1, 1852, to Dec. 31, 1898.		
	Total Mortality.	Aggregate Ages.	Average Age.	Total Mortality.	Aggregate Ages.	Average Age.
Tobacconists.....				14	830	59.29
Traders.....	1	71	71.00	283	14,259	50.39
Undertakers.....	3	234	78.00	49	2,927	59.73
Total.....	181	10,458	57.78	4,743	265,181	55.91
IV.						
OUTDOOR.— <i>Local.</i>						
Boat Builders.....	3	212	70.67	29	1,770	61.03
Brickmakers.....				8	352	44.00
Brick and Stone Layers.....				13	611	47.00
Calkers.....	1	74	74.00	14	977	69.79
Carpenters and Joiners.....	86	5,365	62.38	2,151	120,240	55.85
Masons.....	35	2,064	58.97	905	50,507	55.81
Millwrights.....	1	69	69.00	37	2,464	66.59
Pavers.....				3	129	43.00
Riggers.....				22	1,254	57.00
Roofers.....				6	332	55.33
Ship Carpenters.....	1	67	67.00	79	5,476	69.32
Slaters.....				9	398	44.22
Stonecutters and Marble Workers.....	17	923	54.29	292	14,174	48.54
Superintendents of High- ways.....				1	79	79.79
Tanners and Curriers.....	5	341	68.20	56	3,536	63.14
Wheelwrights.....	4	254	63.50	112	6,775	60.49
Total.....	153	9,369	61.24	3,737	209,074	53.27
V.						
INDOOR.— <i>Active.</i>						
Axe and Scythe Grinders.....				4	222	55.50
Bakers.....	14	654	46.71	159	10,468	65.84
Basket Makers.....				7	404	57.71
Belt.....	1	84	84.00	13	760	58.46

TABLE XI.—OCCUPATIONS AND AGES.—Continued.

OCCUPATIONS.	STATE OF RHODE ISLAND.					
	1898.			Forty-Six Years and Seven Months, June 1, 1852, to Dec. 31, 1898.		
	Total Mortality.	Aggregate Ages.	Average Age.	Total Mortality.	Aggregate Ages.	Average Age.
Bobbin Makers.....	1	53	53.00	3	143	47.67
Boiler.....	3	149	49.67	75	3,153	42.04
Bolt.....				1	41	41.00
Broom and Brush.....				15	743	49.53
Button.....				1	37	37.00
Cabinet.....	4	255	63.75	138	8,017	58.09
Card.....				4	201	50.25
Carriage, and Trimmers.	1	82	82.00	74	4,081	55.15
Chair.....				1	70	70.00
Comb.....				5	187	37.40
Mattress.....				1	38	38.00
Pattern.....	2	135	67.50	81	4,746	58.59
Pianoforte.....				3	157	52.33
Picker.....				5	303	60.06
Plane.....				1	79	79.00
Pump and Block.....				14	788	55.71
Reed.....				6	352	58.67
Sash and Blind.....				9	440	48.89
Scythe.....				1	83	83.00
Spindle.....				5	297	59.40
Stopper.....				1	22	22.00
Stove, and Mounters.....				5	245	49.00
Tool.....	2	126	63.00	30	1,587	52.90
Trunk.....				3	89	29.67
Umbrella.....				2	103	51.50
Wringer.....				1	32	32.00
Beamers.....				2	59	29.50
Bell Hangers.....				2	47	23.50
Blacksmiths and Farriers.	27	1,404	52.00	696	37,691	54.15
Bleachers and Fullers.....	4	250	62.50	68	3,458	50.85
Bonnet Dressers.....				2	73	36.50
Brewers.....				20	978	48.90
Britannia Workers.....				1	65	65.00
Calico Printers.....				57	3,106	54.49
Car Builders.....				1	57	57.00
Stair.....				4	219	54.75
Carders.....	2	81	40.50	7	378	54.00
Card Grinders.....	1	45	45.00	3	138	46.00
Carvers.....				3	147	49.00
Confectioners.....	1	71	71.00	43	2,018	46.93
Cooks and Caterers.....	13	731	56.23	110	5,325	48.41

TABLE XI.—OCCUPATIONS AND AGES.—Continued.

OCCUPATIONS	STATE OF RHODE ISLAND.					
	1898.			Forty-Six Years and Seven Months. June 1, 1852, to Dec. 31, 1898.		
	Total Mortality.	Aggregate Ages.	Average Age.	Total Mortality.	Aggregate Ages.	Average Age.
Coopers	3	147	49.00	129	8,490	65.81
Coppersmiths				14	844	60.29
Cutters				7	344	49.14
Nail				12	490	40.83
Decorators	1	32	32.00	14	526	37.57
Distillers				1	77	77.00
Dyers	5	271	54.20	136	6,931	50.96
Founders				10	381	50.64
Brass and Iron				8	472	59.00
Foundrymen				12	687	57.25
Furnacemen				4	195	48.75
Gasfitters	2	124	62.00	61	2,696	44.20
Gilders				11	449	40.82
Gun and Locksmiths				24	1,314	54.75
Hatters				26	1,400	53.85
Heaters	1	39	39.00	6	219	36.50
Iron Rollers and Workers	2	85	42.50	14	633	45.21
Japanners				1	47	47.00
Lathers				6	240	40.00
Machinists	71	3,802	53.55	1,643	80,058	48.73
Mechanics	11	618	56.18	496	26,119	52.66
Melters	1	64	64.00	9	500	55.56
Miners				15	836	55.80
Moulders	15	706	47.07	338	15,630	46.24
Painters and Glaziers	39	1,881	48.23	935	45,078	48.21
Paperhangers	1	47	47.00	24	1,251	52.12
Plasterers and Stucco- workers	1	50	50.00	53	2,510	47.36
Platers				3	193	64.33
Electro	2	108	54.00	5	320	64.00
Gold				3	124	41.33
Plumbers	11	406	36.91	115	4,551	39.57
Pressmen				6	261	43.50
Refiners	1	36	36.00	4	120	30.00
Gold				3	153	51.00
Oil				1	76	76.00
Sugar				7	311	44.43
Scissors Grinders				2	115	57.50
Soap Boilers				5	353	70.60
Steam Pipers				7	292	41.71
Stove Manufacturers				7		59.43

TABLE XI.—OCCUPATIONS AND AGES.—Continued.

OCCUPATIONS.	STATE OF RHODE ISLAND.					
	1898.			Forty-Six Years and Seven Months, June 1, 1852, to Dec. 31, 1898.		
	Total Mortality.	Aggregate Ages.	Average Age.	Total Mortality.	Aggregate Ages.	Average Age.
Superintendents and Overseers	26	1,350	51.92	344	18,988	55.20
Tallow Chandlers.....				4	322	80.50
Tinsmiths.....	7	431	61.57	134	6,337	47.29
Upholsterers.....	1	26	26.00	56	2,244	40.07
Wire-workers.....	3	91	30.33	14	604	43.14
Wood-carvers.....				4	149	37.25
Finishers.....				7	383	54.71
Turners.....	1	59	59.00	46	1,901	41.32
Total.....	281	14,493	51.58	6,473	328,277	50.71
VI.						
INDOOR.— <i>Activity Restricted.</i>						
Barbers.....	6	240	40.00	249	8,575	34.44
Bookbinders.....				26	1,203	46.27
Bookkeepers and Accountants.....	19	970	51.05	424	19,073	44.98
Box Makers.....				18	814	45.22
Braid.....				1	66	66.00
Chain.....				5	261	52.20
Cigar.....	1	41	41.00	107	4,858	45.40
Clock and Watch.....	2	104	52.00	40	2,219	55.47
Harness, and Saddlers..	3	192	64.00	131	6,591	50.31
Paper.....				7	389	55.57
Rope.....				25	1,672	66.88
Sail.....				38	2,207	58.08
Shoe.....	16	1,026	64.12	621	35,974	57.93
Chasers.....				14	518	37.00
Clerks and Salesmen.....	49	2,006	40.94	1,253	47,333	37.78
Compositors.....	2	100	50.00	3	175	58.33
Die Cutters.....	1	34	34.00	1	34	34.00
Sinkers.....				21	1,016	48.38
Enamellers.....				7	414	59.14
Engravers.....	4	265	66.25	139	6,711	48.28
File Cutters.....	3	138	46.00	92	3,774	41.02
Forgers.....				1	40	40.00

TABLE XI.—OCCUPATIONS AND AGES.—Continued.

OCCUPATIONS.	STATE OF RHODE ISLAND.					
	1898.			Forty-Six Years and Seven Months. June 1, 1852, to Dec. 31, 1898.		
	Total Mortality.	Aggregate Ages.	Average Age.	Total Mortality.	Aggregate Ages.	Average Age.
Finishers	4	177	44.25	17	840	49.41
Brass	1	53	53.00	6	283	47.17
Glass Blowers	1			1	57	57.00
Jewelers	64	2,997	46.83	1,096	45,552	41.56
Shell				3	182	60.67
Knitters	1	21	21.00	1	21	21.00
Lapidaries				11	362	32.91
Laundrymen	2	52	26.00	13	414	31.84
Leather Dressers				3	224	74.61
Millers	1	31	31.00	48	2,739	57.06
Operatives	103	4,898	47.55	2,536	111,835	44.10
Pearl Cutters				3	122	40.67
Polishers	2	54	27.00	30	1,336	44.53
Marble				1	62	62.00
Silver				1	23	23.00
Steel				1	42	42.00
Printers	8	360	45.00	208	11,878	57.11
Proofreaders	1	70	70.00	1	70	70.00
Roll Coverers				32	1,852	57.87
Rubber Workers	8	350	43.75	168	7,021	41.79
Silversmiths	3	183	61.00	125	5,592	44.74
Tailors	17	997	58.65	440	24,311	55.25
Wool Sorters	5	230	46.00	60	2,851	47.52
Total	326	15,589	47.82	8,028	361,586	45.04
VII.						
OCCUPATIONS AT LARGE.						
Army Officers	2	126	63.00	8	3,346	41.82
Baggage-masters				4	124	31.00
Bill Posters	1	42	42.00	2	101	50.50
Boatmen				29	1,673	50.14
Brakemen	10	318	31.80	120	3,532	29.43
Butlers				2	57	28.50
Cab Drivers and Hackmen	1	59	59.00	54	2,395	44.35
Car Drivers, Conductors, and Motormen	3	138	46.00	41	1,568	38.24
Coachmen	13	626	48.15	200	8,740	43.70

TABLE XI.—OCCUPATIONS AND AGES.—Continued.

OCCUPATIONS.	STATE OF RHODE ISLAND.					
	1898.			Forty-Six Years and Seven Months, June 1, 1852, to Dec. 31, 1898.		
	Total Mortality.	Aggregate Ages.	Average Age.	Total Mortality.	Aggregate Ages.	Average Age.
Drivers.....	7	243	34.71	44	1,645	37.39
Drovers.....				2	83	41.50
Elevator Operators.....				1	79	79.00
Engineers and Firemen...	27	1,607	59.52	444	21,890	49.30
Expressmen.....	4	232	58.00	103	5,265	51.12
Fire Company Members..	2	117	58.50	8	334	41.75
Fishermen and Oystermen	11	583	53.00	257	13,199	51.36
Highway Surveyors.....				1	61	61.00
Hostlers.....	10	395	39.50	142	6,144	43.27
House Movers.....	3	188	62.67	9	611	67.89
Icemen.....				5	324	64.80
Janitors.....	9	544	60.44	91	4,851	53.31
Laborers.....	359	18,114	50.46	10,361	513,042	49.52
Lamplighters.....	2	131	65.50	20	1,109	55.45
Linemen.....	1	42	42.00	10	491	49.10
Lumbermen.....				2	153	76.50
Mail Carriers.....	3	134	44.67	5	241	48.20
Mariners.....				529	26,373	49.85
Messengers.....				2	105	52.50
Milkmen.....	2	142	71.00	17	545	32.06
Naval Officers.....				19	941	49.53
Peddlers.....	4	287	71.75	176	8,812	50.07
Pilots.....				22	1,197	54.41
Porters.....	2	61	30.50	49	2,272	46.37
Sailors.....	14	729	52.07	291	13,998	48.10
Scissors Grinders.....	1	72	72.00	1	72	72.00
Sea-captains or Ship-mas- ters.....	8	468	58.50	188	12,534	66.67
Servants.....	1	24	24.00	28	1,196	42.71
Sextons.....				12	751	62.58
Sinkers of Artesian Wells.				3	163	54.33
Soldiers.....	8	244	30.50	151	4,657	30.84
Stage Drivers.....				8	398	49.75
Stevedores.....				16	766	47.87
Stewards.....	2	105	52.50	25	1,169	46.76
Switchmen, Gatemen, etc..	1	58	58.00	20	1,088	54.40
Teamsters.....	32	1,468	45.87	643	30,025	46.70
Theatre Managers.....	1	59	59.00	2	102	51.00
Waiters.....	2	61	30.50	123	5,000	40.65
Watchmen.....	10	650	65.00	178	10,137	56.95
Well Diggers.....				4	295	73.75

TABLE XI.—OCCUPATIONS AND AGES.—Continued.

OCCUPATIONS.	STATE OF RHODE ISLAND.					
	1898.			Forty-Six Years and Seven Months. June 1, 1852, to Dec. 31, 1898.		
	Total Mortality.	Aggregate Ages.	Average Age.	Total Mortality.	Aggregate Ages.	Average Age.
Whitewashers				8	452	56.50
Wood Sawyers				5	239	47.80
Total	556	28,067	50.48	14,485	714,345	49.32
VIII.						
EMPLOYMENTS OF WOMEN.						
Actresses				3	112	37.33
Agents				1	59	59.00
Artists	1	55	55.00	5	276	55.20
Basket Makers				2	149	74.50
Box				5	150	30.00
Broom and Brush				1	34	34.00
Braid				1	66	66.00
Cap				1	28	28.00
Chain				4	152	38.00
Cigar	1	40	40.00	8	243	30.37
Dress, and Seamstresses	15	474	31.60	373	15,099	40.48
Boardinghouse Keepers	1	66	66.00	26	1,626	62.54
Boatwomen				1	60	60.00
Bookkeepers				15	460	30.66
Clerks and Saleswomen	5	135	27.00	35	994	28.40
Compositors	1	28	28.00	1	28	28.00
Cooks	2	130	65.00	49	2,638	53.84
Farming	1	58	58.00	2	124	62.00
Hairdressers	1	30	30.00	2	55	27.50
Jewelers	2	80	40.00	16	456	28.50
Laboring				16	699	43.69
Lace Knitters				1	49	49.00
Laundresses	3	162	54.00	45	2,241	49.80
Matrons				2	102	51.00
Midwives				2	128	64.00
Milliners	2	100	50.00	58	2,063	35.67
Musicians				4	125	31.25
Nurses	6	321	53.50	117	6,945	59.36
Operatives	33	1,118	33.88	1,037	32,723	31.56
Physicians				11	647	58.82
Postmistresses	1	28	28.00	1	28	28.00

TABLE XI.—OCCUPATIONS AND AGES.—Continued.

OCCUPATIONS.	STATE OF RHODE ISLAND.					
	1898.			Forty-Six Years and Seven Months, June 1, 1852, to Dec. 31, 1898.		
	Total Mortality.	Aggregate Ages.	Average Age.	Total Mortality.	Aggregate Ages.	Average Age.
Public Officers				2	110	55.00
Rubber-workers				20	589	29.45
Servants	11	466	42.36	549	26,273	47.86
Sisters of Mercy	1	36	36.00	33	1,258	38.12
Stenographers	1	20	20.00	1	20	20.00
Stewardesses	1	76	76.00	2	114	57.00
Storekeepers				2	99	49.50
Superintendents				2	126	63.00
Tailoresses				149	6,935	46.54
Teachers	6	356	59.33	242	12,357	51.06
Telegraph and Telephone Operators				6	166	27.67
Type-setters	1	58	58.00	1	58	58.00
Upholsterers				1	34	34.00
Waitresses				10	291	29.10
Total	96	3,837	39.97	2,865	116,989	40.87

TABLE XI.—OCCUPATIONS AND AGES.—(RECAPITULATION.)

OCCUPATIONS.	STATE OF RHODE ISLAND.					
	1898.			Forty-Six Years and Seven Months, June 1, 1852, to Dec. 31, 1898.		
	Total Mortality.	Aggregate Ages.	Average Age.	Total Mortality.	Aggregate Ages.	Average Age.
I. TILLERS OF THE SOIL	187	13,013	69.59	7,237	482,606	66.69
II. PROFESSIONAL & PERSONAL	73	4,157	56.95	1,705	92,078	54.00
III. OPTIONAL ACTIVITY	181	10,458	57.78	4,743	265,181	55.91
IV. OUTDOOR.— <i>Local</i>	153	9,369	61.24	3,737	209,074	53.27
V. INDOOR.— <i>Active</i>	281	14,493	51.58	6,473	328,277	50.71
VI. INDOOR.— <i>Activity Restricted</i>	326	15,589	47.82	8,028	361,586	45.04
VII. OCCUPATIONS AT LARGE . . .	556	28,067	50.48	14,485	714,345	49.32
VIII. EMPLOYMENTS OF WOMEN .	96	3,837	39.97	2,865	116,989	40.87
ALL CLASSES	1,853	98,983	53.42	49,273	2,570,136	52.16

TABLE XII.—OCCUPATIONS AND CAUSES OF DEATH, 1898.—Continued.

OCCUPATIONS.	Whole Number.	Accidents.	Alcoholism.	Apoplexy and Paralysis.	Asthma.	Bladder, Diseases of.	Bowel Diseases.	Brain, Diseases of.	Bronchitis.	Cancer.	Consumption.	Debility.	Diabetes.	Diarrhea and Dysentery.	Dropsy.	Enteritis.	Epilepsy.	Erysipelas.	Fever, Malarial.	Fever, Typhoid, etc.	Heart Diseases.	Influenza.	Insanity.	Kidney Diseases.	Liver Diseases.	Old Age.	Pertontis.	Pleurisy.	Pneumonia.	Rheumatism.	Septicæmia.	Stomach Diseases.	Suicide.	Tuberculosis.																					
Physicians.....	5	1																			3	1																																	
Postmasters.....	1																			1								1																											
Professors and Teachers..	3								1																			1																											
Public Officers.....	1																																																						
Sheriffs and Policemen..	3			1																					1																														
Students.....	2																			2																																			
Weighers and Gaugers....	1																									1																													
Total.....	68	5	2	12		1	2	1	3	6								1	1	3	11	2		4	2	3	1	6							2																				
III.																																																							
OPTIONAL ACTIVITY.																																																							
Agents and Canvassers....	5								2														1	2																															
Insurance.....	2																							1																															
Real Estate.....	4					2																																																	
Bankers and Brokers.....	3			1																																																			
Bank Officers.....	1																																					1																	

TABLE XII.—OCCUPATIONS AND CAUSES OF DEATH, 1898.—Continued.

OCCUPATIONS.	Whole Number.	Accidents.	Alcoholism.	Apoplexy and Paralysis.	Asthma.	Bladder, Diseases of.	Bowel Diseases.	Brain, Diseases of.	Bronchitis.	Cancer.	Consumption.	Debility.	Diabetes.	Dysentery.	Diphtheria and Dysentery.	Enteritis.	Epilepsy.	Erysipelas.	Fever, Malarial.	Fever, Typhoid, etc.	Heart Diseases.	Influenza.	Insanity.	Kidney Diseases.	Liver Diseases.	Old Age.	Peritonitis.	Pleurisy.	Pneumonia.	Rheumatism.	Septicæmia.	Stomach Diseases.	Suicide.	Tuberculosis.					
Callers.....	1							1																															
Carpenters and Joiners...	83	9		9		1		3	1	7	10				1		1		1		15		1	7	8							1							
Masons.....	34	9		1				2		2	3		1		1						4	1	1	1	3														
Millwrights.....	1																																						
Ship Carpenters.....	1																							1															
Stonecutters and Marble Workers.....	16	2							2	6											3		1	1	1														
Tanners and Curriers.....	5	1								1											1		1	1															
Wheelwrights.....	4									1													1	1															
Total.....	148	21	12	3		7	3	11	20	1	2		1	2		1		1		1	23	1	1	12	1	11		14	1			1							
V.																																							
INDOOR.— <i>Active.</i>																																							
Bakers.....	14	1	1							1	3				1						1			2															
Belt Makers.....	1																									1													
Bobbin.....	1																																						

TABLE XII.—OCCUPATIONS AND CAUSES OF DEATH, 1898.—Continued.

OCCUPATIONS.	Whole Number.	Accidents.	Alcoholism.	Apoplexy and Paralysis.	Asthma.	Bladder, Diseases of.	Bowel Diseases.	Brain, Diseases of.	Bronchitis.	Cancer.	Consumption.	Debility.	Diabetes.	Diarrhea and Dysentery.	Dropsy.	Enteritis.	Epilepsy.	Erysipelas.	Fever, Malarial.	Fever, Typhoid, etc.	Heart Diseases.	Influenza.	Insanity.	Kidney Diseases.	Liver Diseases.	Old Age.	Pertontitis.	Pleurisy.	Pneumonia.	Rheumatism.	Septicæmia.	Stomach Diseases.	Suicide.	Tuberculosis.		
Boiler Makers.....	3				1			1													1															
Cabinet.....	3				1			1			2																									
Carriage, and Trimmers.	1							1																												
Pattern.....	2																					1														
Tool.....	2				1						1																									
Blacksmiths.....	27	6	3	2				2	1	1	4			1							4			1	1										1	
Bleachers and Fullers.....	4										1										1															
Caders.....	2										1																									
Card Grinders.....	1																																			
Confectioners.....	1																																			
Cooks and Caterers.....	12	1		3	1					1	3			1										1	1											
Coopers.....	2										2																									
Decorators.....	1										1																									
Dyers.....	5	1								1														1												
Gasfitters.....	1												1																							
Heaters.....	1				1																															
Iron Rollers and Workers.	2																																			
Machinists.....	68	5	1	3		1	1	3		3	15										8	1	1	7	2	5			7				1	1		

TABLE XII.—OCCUPATIONS AND CAUSES OF DEATH, 1898.—Continued.

OCCUPATIONS.	Whole Number.	Accidents.	Alcoholism.	Apoplexy and Paralysis.	Asthma.	Bladder, Diseases of.	Bowel Diseases.	Brain, Diseases of.	Bronchitis.	Cancer.	Consumption.	Debility.	Diabetes.	Diphtheria and Dysentery.	Dropsy.	Enteritis.	Epilepsy.	Erysipelas.	Fever, Malarial.	Fever, Typhoid, etc.	Heart Diseases.	Influenza.	Insanity.	Kidney Diseases.	Liver Diseases.	Old Age.	Peritonitis.	Pleurisy.	Pneumonia.	Rheumatism.	Septicæmia.	Stomach Diseases.	Suicide.	Tuberculosis.			
Mechanics.....	11	1		3			1	1							3									1		1											
Melters.....	1						1	1																1													
Molders.....	15	2		2		3	3	2							1	1				1			1				1								1		
Painters and Glaziers.....	35	5	2	2		1	1	3	6						4						4		7		7	1	1		4								
Paperhangers.....	1									1																											
Plasterers and Stucco-workers.....	1									1																											
Platers, Electro.....	2	1								1																											
Plumbers.....	11	1		1		1	1													1			2		2	1											
Refiners.....	1																																				
Superintendents and Overseers.....	25	4		3					3										1	1	3	2		4	2	2		1								1	
Tinsmiths.....	6	1			1				1												2					1											
Upholsters.....	1										1																										
Wire-workers.....	3			1																																	
Wood-turners.....	1																																				
Total.....	268	28	7	21	4	3	1	11	4	11	54	1	3		3	1	4	30	5	4	32	5	3	33	4	12	1	19							2	2	1

TABLE XII.—OCCUPATIONS AND CAUSES OF DEATH, 1898.—Continued.

OCCUPATIONS.	Whole Number.	Accidents.	Alcoholism.	Apoplexy and Paralysis.	Asthma.	Bladder, Diseases of.	Bowel Diseases.	Brain, Diseases of.	Bronchitis.	Cancer.	Consumption.	Debility.	Diabetes.	Diarthra and Dysentery.	Dropsy.	Eneritis.	Epilepsy.	Erysipelas.	Fever, Malarial.	Fever, Typhoid, etc.	Heart Diseases.	Influenza.	Insanity.	Kidney Diseases.	Liver Diseases.	Old Age.	Peritonitis.	Pleurisy.	Pneumonia.	Rheumatism.	Septicæmia.	Stomach Diseases.	Suicide.	Tuberculosis.													
Bill Posters	1	1																			1																										
Brakemen	10	7									1										1																										
Cab Drivers and Hackmen	1																																														
Car Drivers, Conductors, and Motormen	3																																														
Coachmen	12	2							1		4										2																										
Drivers	7										3										1																										
Engineers and Firemen . .	26	3		5						2	3	1								1	3																										
Expressmen	4	1									1																																				
Fire Company Members . .	2																																														
Fishermen and Oystermen	11	3		1							1																																				
Hostlers	10	2		2							4																																				
House Movers	2	1																																													
Janitors	9		1								2																																				
Laborers	347	38	9	22	2	3	5	13	9	83				2	5					3	9	36	4	3	30	10	8	3	24	7																	
Lamplighters	2										1																																				
Linemen	1	1																																													
Mail Carriers	3					1																																									

TABLE XII.—SUPPLEMENTAL DISEASES.—Continued.

OCCUPATIONS.	Whole Number.	Abscess of Pelvis.	Abscess, Psoas.	Abscess, Rectum.	Anæmia.	Angina Pectoris.	Appendicitis.	Calculi, Vesical.	Carcinoma of Pelvis.	Cellulitis of Neck.	Cerebro-Spinal Meningitis.	Diphtheria.	Empyema.	Exoplthalmic Goitre.	Fibroid Uterus.	Gall Stones.	Hernia.	Hodgkins' Disease.	Locomotor Ataxia.	Necrosis, Tibia.	Osteotomy of Femur.	Pott's Disease.	Pyæmia.	Purpura Hemorrhagica.	Rectal Fistula.	Sarcoma of Peritonæum.	Sarcoma of Throat.	Spinal Sclerosis.	Syphilis.	Tumor of Lung.	Varicose Ulcer.		
FEMALES.																																	
Boardinghouse Keepers	1					1																											
Cooks	1																																
Dressmakers	2	1																															
Nurses	1																																
Operatives	2				1																												
Servants	1																																
Sisters of Mercy	1																																
Teachers	1																																
Total	10	1	1	1	1	1	1	3	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
Grand total	75	1	1	5	10	15	1	1	1	1	5	1	2	1	3	2	10	1	1	1	1	1	1	1	1	2	1	1	1	1	1	1	

RESULTS AND OBSERVATIONS.

GENERAL SUMMARY.

The number of births registered in the State of Rhode Island, during the year 1898, was ten thousand seven hundred and thirty (10,730); the number of marriages, three thousand two hundred and seventy-eight (3,278); and the number of deaths, six thousand nine hundred and five (6,905).

TABLE XIII.

General results of Registration for ten years, 1854-63, and for each of the last thirty-five years.

Years.	Whole Number		Living		
	of Births.	Still-born.	Births.	Marriages.	Deaths.
1854-1863.....	38,042.....	1,471.....	36,571.....	14,943.....	24,230
1864.....	3,892.....	138.....	3,754.....	1,844.....	3,360
1865.....	3,955.....	177.....	3,778.....	1,896.....	3,405
1866.....	4,902.....	172.....	4,730.....	2,318.....	2,970
1867.....	5,127.....	163.....	4,964.....	2,341.....	2,889
1868.....	5,372.....	212.....	5,160.....	2,285.....	2,912
1869.....	5,245.....	220.....	5,025.....	2,289.....	3,382
1870.....	5,215.....	234.....	4,981.....	2,362.....	3,238
1871.....	5,678.....	223.....	5,455.....	2,336.....	3,344
1872.....	6,143.....	202.....	5,941.....	2,537.....	4,247
1873.....	6,022.....	228.....	5,794.....	2,630.....	4,403
1874.....	6,466.....	277.....	6,189.....	2,541.....	4,229
1875.....	6,508.....	246.....	6,262.....	2,485.....	4,317
1876.....	6,329.....	224.....	6,105.....	2,253.....	4,116
1877.....	6,235.....	242.....	5,993.....	2,282.....	4,450
1878.....	6,714.....	248.....	6,466.....	2,324.....	4,441
1879.....	6,350.....	216.....	6,134.....	2,396.....	4,472
1880.....	6,295.....	192.....	6,103.....	2,769.....	4,829
1881.....	6,761.....	264.....	6,497.....	2,750.....	5,016
1882.....	6,825.....	253.....	6,572.....	2,634.....	5,074
1883.....	7,046.....	253.....	6,793.....	2,611.....	5,282
1884.....	7,305.....	272.....	7,033.....	2,558.....	5,141
1885.....	7,028.....	271.....	6,757.....	2,488.....	5,389
1886.....	7,621.....	293.....	7,328.....	2,750.....	5,840

TABLE XIII.—Continued.

Years.	Whole Number		Living		
	of Births.	Still-born.	Births.	Marriages.	Deaths.
1887.....	7,668.....	276.....	7,392.....	2,889.....	6,340.....
1888.....	7,840.....	295.....	7,545.....	3,022.....	6,594.....
1889.....	8,220.....	329.....	7,891.....	3,029.....	6,259.....
1890.....	8,550.....	296.....	8,254.....	3,195.....	6,984.....
1891.....	9,426.....	272.....	9,154.....	3,320.....	6,620.....
1892.....	9,270.....	343.....	8,927.....	3,502.....	7,396.....
1893.....	10,048.....	412.....	9,636.....	3,544.....	7,440.....
1894.....	9,985.....	392.....	9,593.....	3,271.....	7,160.....
1895.....	10,249.....	367.....	9,882.....	3,497.....	7,535.....
1896.....	11,174.....	424.....	10,750.....	3,327.....	7,504.....
1897.....	11,218.....	423.....	10,795.....	3,187.....	7,110.....
1898.....	11,143.....	413.....	10,730.....	3,278.....	6,905.....

During the period of forty-five years there were recorded, in Rhode Island, 291,867 births, of which number 10,933 were still-born, and 280,934 were living children.

During the same period there were recorded 109,586 marriages, or 219,172 persons married, and 204,782 deaths.

These results show that in every 26.7 births there was one still-born child, or that in every 1,000 births there were about 37 still-born and 963 living children.

The same results also show that the ratio of whole number of living births to the whole number of persons married, and to the whole number of decedents respectively, during the same period, was as follows :

	Of persons married	Of deaths,
For every 100 living births there were	74.5 and.....	72.9

The number of births in 1898 was 65 less than the previous year; the number of marriages 141 greater, or 284 more persons married; and there was a decrease of 205 deaths.

For every 100 births there were :

	Of persons married,	Of deaths,
In 1894.....	68.2 and.....	74.6
In 1895.....	70.8 and.....	76.2
In 1896.....	61.9 and.....	69.8
In 1897.....	58.1 and.....	65.9
In 1898.....	61.1 and.....	64.4

TABLE XIV.

Comparative Exhibit of Births, Marriages, and Deaths in each Town in Rhode Island, in each of the Six Years 1893-1898, and Excess of Births over the Deaths in 1898.

TOWNS AND DIVISIONS OF THE STATE.	BIRTHS.						MARRIAGES.						DEATHS.						Excess of Births over Deaths.								
	1893.		1894.		1895.		1896.		1897.		1898.		1893.		1894.		1895.			1896.		1897.		1898.			
Barrington.....	26	26	38	28	35	33	13	15	7	10	87	84	87	228	200	256	220	231	212	19	22	35	19	22	19	14	
Bristol.....	111	106	166	150	143	138	98	52	47	48	40	40	40	108	102	135	111	130	109	109	130	135	111	130	109	29	
Warrten.....	88	108	104	165	158	130	53	45	33	29	37	36	36	98	78	86	60	79	84	55	55	86	60	79	84	55	
BRISTOL COUNTY.....	225	240	308	283	336	310	114	112	87	87	87	84	87	228	200	256	220	231	212	19	22	35	19	22	19	48	
Covenory.....	128	117	110	165	122	137	26	22	23	24	17	18	18	107	98	100	116	103	81	56	103	100	116	103	81	56	
East Greenwich.....	77	69	55	76	61	36	41	31	33	30	31	31	31	67	66	67	60	58	53	—14	67	66	60	58	53	—14	
West Greenwich.....	14	9	11	8	12	7	.....	2	1	.....	.....	.....	.....	13	12	13	10	9	9	—2	13	12	13	10	9	—2	
Warwick.....	465	481	581	685	703	798	171	142	111	114	123	156	156	331	401	342	397	366	373	425	397	366	373	366	373	425	
KENT COUNTY.....	684	676	757	931	898	981	238	197	168	158	171	205	205	578	577	522	583	536	516	465	578	577	522	583	536	516	465
JAMESTOWN.....	8	21	8	10	15	20	4	6	4	3	4	4	2	17	14	12	8	17	12	8	17	14	12	8	17	12	8
Little Compton.....	5	11	10	19	15	17	9	3	4	5	11	7	7	14	15	17	32	22	17	0	32	22	17	32	22	17	0
Middletown.....	35	32	29	39	25	27	151	167	184	157	155	150	150	370	378	356	390	370	349	10	370	378	356	390	370	349	10
Newport City.....	585	593	580	607	556	577	151	167	184	157	155	150	150	370	378	356	390	370	349	228	370	378	356	390	370	349	228
New Shoreham.....	28	24	27	7	16	20	9	8	13	11	4	10	34	26	22	22	23	23	21	17	22	22	23	23	21	17	3
Portsmouth.....	13	32	40	31	33	36	14	13	15	8	7	6	6	19	18	20	20	18	28	8	20	20	18	20	18	28	8
Tiverton.....	81	67	70	71	45	35	19	19	15	16	20	11	11	46	57	48	50	49	36	—21	46	57	48	50	49	36	—21
NEWPORT COUNTY.....	755	774	767	774	719	730	308	222	235	204	206	189	189	511	519	491	532	511	494	236	511	519	491	532	511	494	236

TABLE XIV.—Continued.

TOWNS AND DIVISIONS OF THE STATE.	BIRTHS.				MARRIAGES.				DEATHS.				Excess of Births over Deaths.						
	1893.	1894.	1895.	1896.	1897.	1898.	1893.	1894.	1895.	1896.	1897.	1898.							
Burrillville.....	127	96	121	129	131	167	45	32	41	28	85	32	87	112	107	99	92	95	72
CENTRAL FALLS.....	.....	.....	287	516	511	563	.....	.....	131	125	119	148	.....	.....	147	148	159	183	218
Cranston*.....	179	160	220	270	232	227	50	33	32	61	50	69	130	147	148	150	183	172	345
Cumberland.....	246	186	248	205	237	228	83	65	68	63	51	62	185	148	136	168	166	146	55
East Providence.....	199	213	208	259	267	232	95	69	75	56	60	74	150	171	160	156	163	123	92
Foster.....	27	19	19	24	22	21	15	12	10	12	13	15	24	20	24	17	28	17	4
Glocester.....	38	41	30	29	24	23	12	9	9	9	9	7	28	31	33	36	30	27	4
Johnston.....	270	365	301	280	364	197	159	81	46	42	45	17	200	193	210	222	204	130	67
Lincoln.....	761	808	223	202	289	221	181	189	86	63	50	63	451	450	183	123	110	115	106
North Providence.....	74	48	69	63	52	67	6	6	3	3	4	4	38	23	35	31	38	35	32
North Smithfield.....	64	91	62	70	82	81	22	13	18	10	25	19	44	32	49	54	52	52	29
PAYTUCKET.....	824	777	925	938	988	1,067	346	297	345	353	291	270	599	590	616	595	543	524	524
PROVIDENCE CITY.....	4,194	4,122	3,908	4,138	4,119	4,256	1,608	1,505	1,617	1,588	1,458	1,566	3,141	2,898	3,059	2,957	2,811	2,929	1,327
Schuatic.....	68	68	63	58	58	58	30	35	26	30	24	25	64	61	71	69	68	53	5
Smithfield.....	42	69	41	54	50	38	16	20	17	17	16	11	44	41	24	45	41	31	7
WOONSOCKET.....	805	735	793	804	861	808	239	176	250	244	223	228	438	413	447	529	465	458	350
PROVIDENCE COUNTY.....	7,918	7,820	7,608	8,269	8,375	8,264	2,809	2,563	2,794	2,669	2,610	2,473	5,648	5,306	5,742	5,608	5,269	5,144	3,120
Charlestown.....	14	8	13	17	10	16	7	5	9	5	7	7	5	17	23	22	12	15	1
Exeter.....	6	6	10	7	10	10	11	13	9	8	8	15	17	12	19	15	10	13	3
Hopkinton.....	59	45	44	45	52	47	28	17	33	38	28	25	42	56	31	47	46	49	2
Narragansett.....	18	38	23	38	28	23	9	3	6	14	10	4	12	24	20	20	20	13	10
North Kingstown.....	90	84	74	81	84	74	22	36	25	30	23	26	51	76	76	51	60	63	11
South Kingstown.....	103	102	104	100	93	113	32	35	37	43	43	31	66	79	71	94	71	83	30
Richmond.....	24	37	25	19	25	17	7	8	5	10	8	8	20	29	21	18	27	24	7
Westerly.....	152	155	149	180	168	145	59	60	89	66	76	71	94	109	107	115	125	109	36
WASHINGTON COUNTY.....	466	475	442	490	467	445	175	177	213	209	203	187	307	402	371	382	371	369	76
STATE INSTITUTIONS.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	165	156	153	179	192	170	.....
WHOLE STATE.....	10,048	9,985	9,862	10,750	10,795	10,730	3,544	3,271	3,496	3,327	3,187	3,278	7,440	7,160	7,585	7,504	7,110	6,905	3,825

* Exclusive of deaths in State Institutions.

The varying numbers of the events of births, marriages, and deaths occurring in the different towns, during each of the six years ending December 31, 1898, are very concisely presented in Table XIV, and a ready means is thereby afforded of comparing and studying the changes in the vital movements of the people in the different precincts during those years.

The actual increase of population in the State, for the ten years 1885 to 1895, was 80,474, or 26.45 per cent., or an annual average of two and six-tenths per cent. The increase by immigration must have been nearly twice as large as the natural increase.

TABLE XV.

Births, Marriages, and Deaths in Rhode Island, in 1898, with the number and ratio of each in every 1,000 of the Population of each Town, and the ratio of excess of the Births over the Deaths in every 1,000 of the Population.

TOWNS AND DIVISIONS OF THE STATE.	Population in 1897. †	Births.	Births per 1,000 of Population.	Marriages.	Persons Married per 1,000 of Population.	Deaths.	Deaths per 1,000 of Population.	Excess of Births per 1,000.
Barrington	1,755	33	18.8	11	12.5	19	10.8	8.0
Bristol	7,039	138	19.6	40	11.4	109	15.5	4.1
Warren	5,301	139	26.2	36	13.6	84	15.8	10.4
BRISTOL COUNTY	14,095	310	22.0	87	12.3	212	15.0	7.0
Coventry	5,102	137	26.8	18	7.1	81	15.9	10.9
East Greenwich	3,216	39	12.1	31	19.3	53	16.5	-6.4
West Greenwich	675	7	10.4	.....	.....	9	13.3	2.9
Warwick	24,143	798	33.1	156	12.9	373	15.4	17.7
KENT COUNTY	33,136	981	29.6	205	12.4	516	15.6	14.0
Jamestown	930	20	21.5	3	4.3	12	12.9	8.6
Little Compton	1,128	17	15.1	7	12.4	17	15.1	0.0
Middletown	1,494	25	16.7	3	4.0	15	10.0	6.7
NEWPORT CITY	22,116	577	26.1	150	13.6	349	15.8	10.3
New Shoreham	1,307	20	15.3	10	15.3	17	13.0	2.3
Portsmouth	1,780	36	20.2	6	6.7	28	15.7	4.5
Tiverton	3,038	35	11.5	11	7.2	56	18.4	-6.9
NEWPORT COUNTY	31,793	730	22.9	189	11.9	494	15.5	7.4
Burrillville	5,830	167	28.6	32	11.0	95	16.3	12.3
CENTRAL FALLS	17,462	563	32.2	148	16.9	218	12.5	19.7
Cranston*	10,284	227	22.1	69	13.4	172	16.7	5.4
Cumberland	8,932	298	26.6	62	13.9	146	16.3	10.3
East Providence	11,432	232	20.3	74	12.9	123	10.7	9.6
Foster	1,129	21	18.6	15	26.5	17	15.1	3.5
Glocester	1,549	23	14.8	7	9.0	27	17.4	-2.6
Johnson	12,529	197	15.7	17	2.7	130	10.4	5.3
Lincoln	9,213	221	24.0	63	13.7	115	12.5	11.5
North Providence	2,820	67	23.8	4	2.8	35	12.4	11.4
North Smithfield	2,743	81	29.5	19	13.8	52	18.9	10.6
PAWTUCKET	36,008	1,067	29.5	270	14.9	543	15.0	14.5
PROVIDENCE CITY	154,333	4,256	27.6	1,566	20.3	2,929	12.5	15.1
Scituate	3,492	58	16.6	25	14.3	53	15.2	1.4
Smithfield	2,325	38	16.3	11	9.5	31	13.3	3.0
WOONSOCKET	27,591	808	29.3	228	16.5	458	16.6	12.7
PROVIDENCE COUNTY	307,752	8,264	26.8	2,610	17.0	5,144	16.7	10.1
Charlestown	964	16	16.6	7	14.5	15	15.5	1.1
Exeter	869	10	11.5	15	34.5	13	14.9	-3.4
Hopkinton	2,679	47	17.5	25	18.7	49	18.3	-0.8
Narragansett District	1,302	23	17.7	4	6.1	13	9.9	7.8
North Kingstown	4,571	74	16.2	26	11.4	63	13.8	2.4
South Kingstown	5,376	113	21.0	31	11.5	83	15.4	5.6
Richmond	1,623	17	10.5	8	9.9	24	14.8	-4.3
Westerly	8,049	145	18.0	71	17.6	109	13.5	4.5
WASHINGTON COUNTY	25,433	445	17.5	187	14.7	369	14.5	3.0
STATE INSTITUTIONS	2,204	.....	.....	.....	.....	170	77.1	.....
WHOLE STATE	414,413	10,730	25.9	3,278	15.8	6,905	16.7	9.2

* Not including State Institutions.

† Geometrically estimated.

BIRTHS. *Proportion to Population.*

In Table XV, on the preceding page, may be found the varying proportions of the number of births, marriages, and deaths to every 1,000 of the population in the various towns and cities in the State, as they occurred in 1898.

In regard to births, the extreme range of proportion to population was from 10.4 in every 1,000, in West Greenwich, to 33.1, in Warwick. Following Warwick, in the line of largest proportion, are Central Falls, with 32.2; and North Smithfield and Pawtucket, with 29.5 each. Following West Greenwich, in the line of the smallest proportion of births to population, are Richmond, with 10.5 in every 1,000; and Exeter and Tiverton, with 11.5 each.

The proportion of births to population in all the counties entire, and in the cities of Central Falls, Newport, Pawtucket, Providence, Woonsocket, and the whole State, during the last seven years, are as follows:

BIRTHS TO EVERY 1,000 PERSONS.

	1898.	1897.	1896.	1895.	1894.	1893.	1892.
Bristol County.....	22.0	27.1	23.0	25.2	19.7	19.6	17.0
Kent County.....	29.6	28.0	30.1	25.2	23.2	22.9	23.0
Newport County.....	22.9	22.8	24.8	24.8	25.2	26.3	23.1
Newport City.....	26.1	25.4	27.9	26.9	27.8	30.1	24.4
Providence County.....	26.8	27.9	28.3	26.8	28.2	27.9	26.9
Central Falls.....	32.2	30.2	35.2				
Pawtucket.....	29.5	28.3	27.5	28.4	21.7	27.0	24.5
Providence City.....	27.6	27.2	27.8	27.5	28.9	27.9	27.8
Woonsocket.....	29.3	32.5	33.9	32.4	32.1	34.1	31.2
Washington County.....	17.5	18.5	19.6	17.9	19.4	19.1	16.8
Whole State.....	25.9	26.8	27.3	25.7	26.6	26.5	25.2

PERSONS MARRIED. *Proportion to Population.*

The proportion to the population, of persons married, can be more correctly shown in counties, or in cities and aggregates of towns, than in single towns.

The following summary will present the proportions in the manner suggested, for the last seven years:

PERSONS MARRIED IN EVERY 1,000.

	1898.	1897.	1896.	1895.	1894.	1893.	1892.
Bristol County.....	12.3	13.5	14.0	14.2	18.5	19.9	15.3
Kent County.....	12.4	10.7	10.2	11.2	13.5	15.9	16.3
Newport County.....	11.9	13.1	13.1	15.2	14.5	14.5	15.9
Newport City.....	13.6	14.1	14.4	17.1	15.7	15.6	16.0
Providence County.....	17.0	16.5	18.2	19.6	18.5	19.8	20.2
Central Falls.....	16.9	14.1	15.3				
Pawtucket.....	14.9	16.7	20.9	21.2	18.8	22.7	22.3
Providence City.....	20.3	27.2	21.4	22.2	21.1	21.4	22.4
Woonsocket.....	16.5	32.5	16.8	20.4	15.0	20.2	19.3
Washington County.....	14.7	18.5	16.7	17.2	14.4	14.4	16.2
Whole State.....	15.8	26.8	17.0	18.2	17.4	18.7	19.1

DEATHS. *Proportion to Population.*

The number of deaths, in proportion to the living population, varies considerably from year to year in the different towns. The smaller the towns the greater generally is the annual variation.

The highest rate occurred in North Smithfield, that is, 18.9 in every 1,000 of the population; followed by Tiverton, 18.4, and Hopkinton, 18.3.

The lowest death rate was in the District of Narragansett, that is, 9.9 in every 1,000 of the population; followed by Middletown, with 10.0, and Johnston, with 10.4.

The following summary will give the ratios of mortality to the population in the cities and counties of the State, during the seven years ending December 31, 1898:

DEATHS IN EVERY 1,000 OF POPULATION.

	1898.	1897.	1896.	1895.	1894.	1893.	1892.
Bristol County.....	15.0	18.6	17.9	20.9	16.5	19.9	20.0
Kent County.....	15.6	16.7	18.8	17.4	19.8	19.4	20.7
Newport County.....	15.5	16.2	17.0	15.9	16.9	17.9	20.1
Newport City.....	15.8	16.9	17.5	16.5	17.7	19.1	20.0
Central Falls.....	12.5	13.2	19.9				
Pawtucket.....	15.0	17.7	18.3	20.1	18.7	19.6	21.7
Providence City.....	12.5	18.6	19.9	21.2	20.3	20.9	20.9
Woonsocket.....	16.6	17.5	20.8	18.3	17.6	18.6	19.5
Providence County.....	16.7	17.6	19.2	20.1	19.1	19.9	20.2
Washington County.....	14.5	14.7	15.3	15.0	16.4	12.6	15.2
Whole State.....	16.7	17.6	19.1	19.6	19.1	19.6	20.1

The proportion of deaths to the living population, in 1898, was noticeably smaller than the annual average of the previous six years in each county and city in the State.

TABLE XVI.

Proportion of Births, Marriages, and Deaths to the Population, in the Whole State, in each of the last thirty years, geometrically estimated.

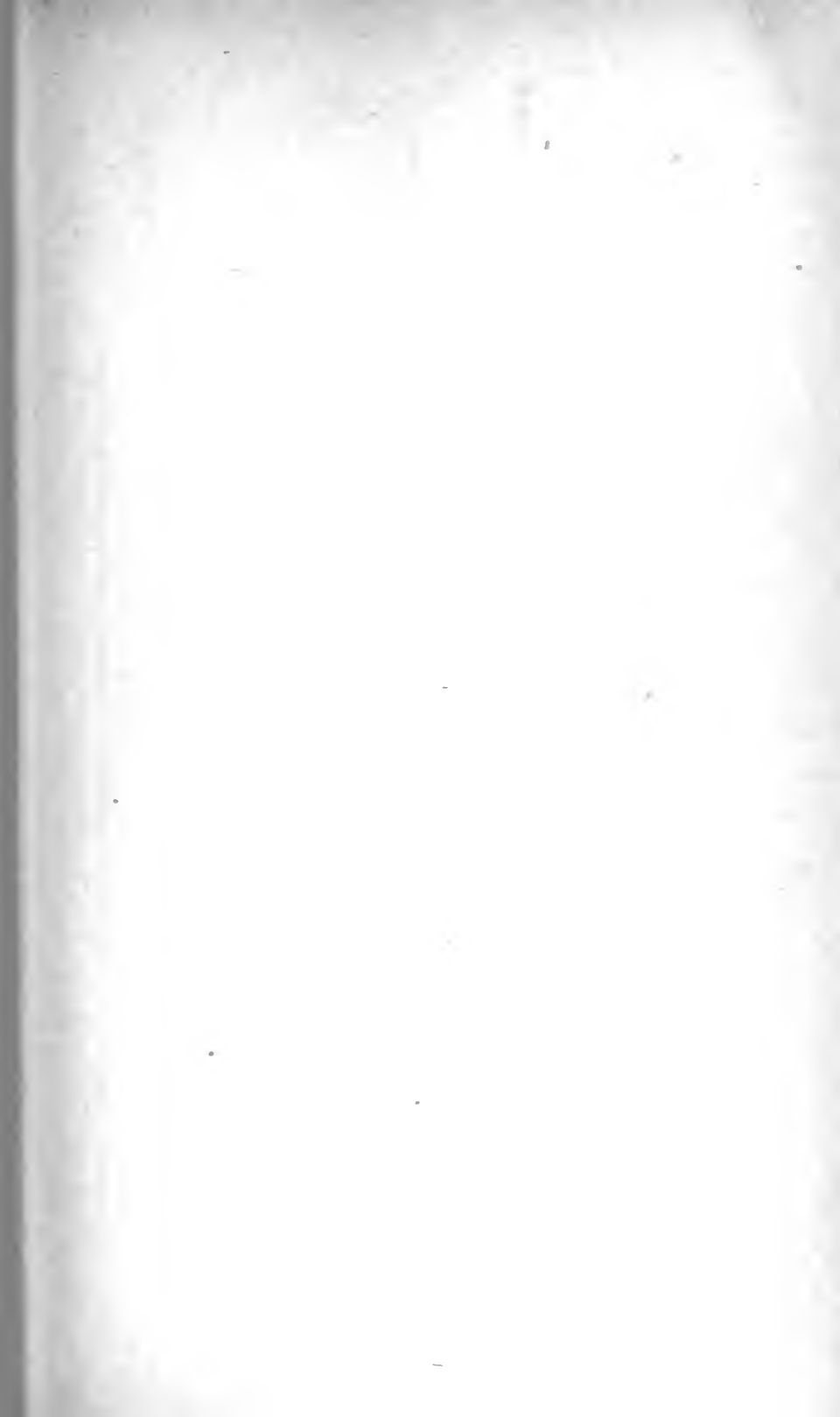
YEARS.	Popu- lation.	BIRTHS.		MARRIAGES.		DEATHS.		
		Number.	Of popu- lation, one birth in every	Number.	Of popu- lation, one per- son mar- ried in every	Number.	Of popu- lation, one death in every	Deaths in every 1,000 of the popu- lation.
1869.....	211,380	5,245	40.3	2,289	46.2	3,382	62.5	16.0
1870.....	218,555	5,215	41.9	2,362	46.2	3,288	67.5	14.8
1871.....	225,968	5,676	39.8	2,336	48.4	3,344	67.6	14.8
1872.....	233,637	6,143	38.0	2,537	46.0	4,247	55.0	18.2
1873.....	241,561	6,022	40.1	2,630	45.9	4,403	54.8	18.2
1874.....	249,765	6,466	38.6	2,541	49.1	4,229	59.0	16.9
1875.....	258,239	6,508	39.7	2,485	52.0	4,317	59.8	16.7
1876.....	262,513	6,329	41.5	2,253	58.3	4,116	63.8	15.7
1877.....	266,850	6,235	42.8	2,282	58.4	4,450	60.0	16.7
1878.....	271,269	6,714	40.4	2,334	58.4	4,441	61.1	16.4
1879.....	275,753	6,350	43.4	2,396	57.5	4,472	61.7	16.2
1880.....	280,319	6,295	44.5	2,769	50.6	4,829	58.0	17.2
1881.....	284,960	6,761	42.1	2,750	51.8	5,016	56.8	17.6
1882.....	289,667	6,825	42.4	2,634	55.0	5,074	57.1	17.5
1883.....	294,460	7,046	41.8	2,611	56.4	5,282	55.7	17.9
1884.....	299,329	7,305	41.0	2,558	58.5	5,141	58.2	17.2
1885.....	304,284	7,028	43.3	2,488	61.2	5,389	56.5	17.7
1886.....	311,507	7,621	40.9	2,750	56.6	5,848	53.3	18.8
1887.....	318,907	7,668	41.6	2,839	56.2	6,340	50.3	19.9
1888.....	326,177	7,840	41.6	3,032	54.0	6,591	49.5	20.2
1889.....	331,223	8,220	40.7	3,029	55.2	6,259	53.4	18.7
1890.....	342,169	8,550	40.0	3,195	53.5	6,934	49.3	20.3
1891.....	350,292	9,426	37.2	3,320	52.8	6,620	52.9	18.9
1892.....	358,608	9,270	38.7	3,502	51.2	7,396	48.5	20.6
1893.....	367,125	10,048	36.5	3,544	51.9	7,440	49.3	20.2
1894.....	375,836	9,985	37.6	3,271	57.4	7,160	52.5	19.1
1895.....	384,758	9,882	38.9	3,497	55.0	7,535	51.1	19.6
1896.....	393,891	10,750	36.6	3,327	59.2	7,504	52.5	19.1
1897.....	403,245	10,795	37.4	3,137	64.3	7,110	56.7	17.6
1898.....	414,413	10,730	38.6	3,278	65.2	6,905	60.0	16.7

During the ten years 1871-1880, the average annual birth rate was one birth to every 39.7 of the population, or 25.2 births in every 1,000; during the ten years 1881-1890, the average birth rate was one birth in every 41.0 of the population, or 24.3 in every 1,000; a falling off of a proportion of nearly one birth in every 1,000 of the population.

From 1891 to 1898 the average annual birth rate was one birth in every 37.7 of the population, or 26.3 in every 1,000.

During the period of ten years 1871-1880, the average annual death rate was one in every 58.4 of the population, or 17.2 in every 1,000, according to the returns. During the ten years 1881-1890, the average annual death rate was one in every 53.3 of the population, or 18.8 in every 1,000 of the living. From 1891 to 1898 the average annual death rate was one in every 53.6 of the population, or 19.0 in every 1,000 of the living.

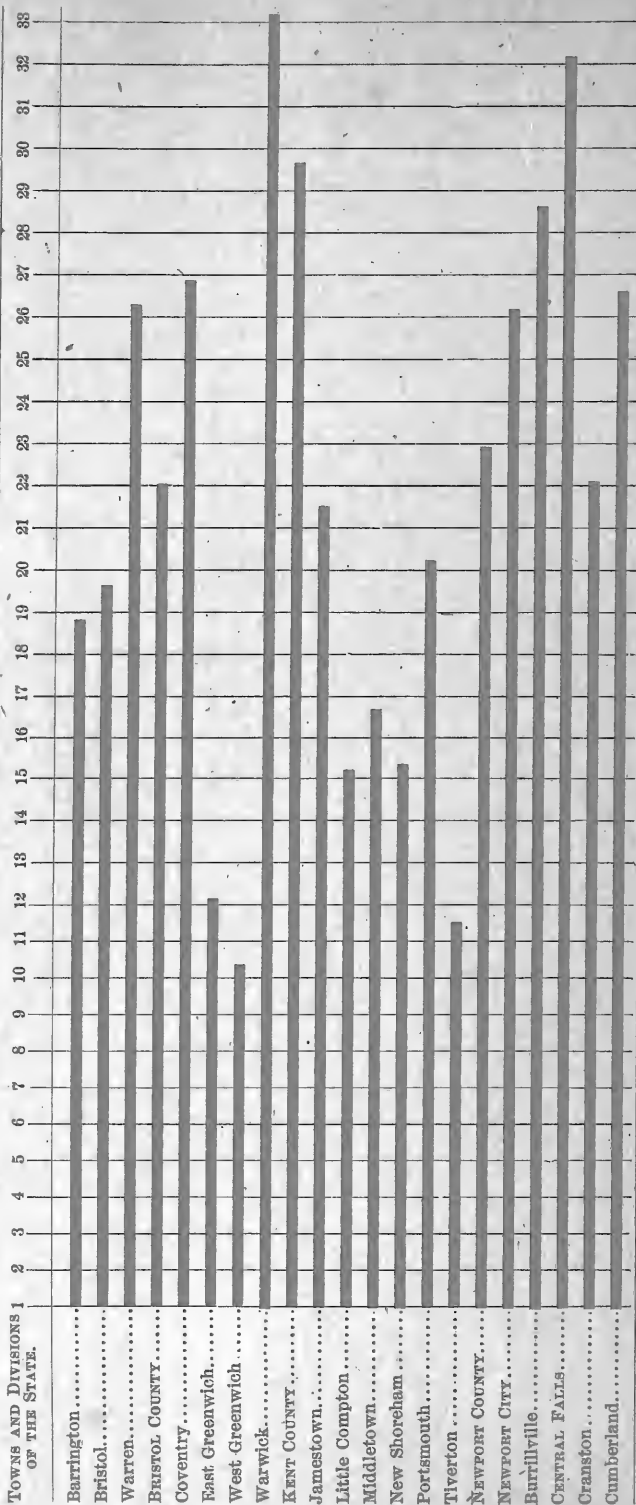
It must be remembered, however, that the returns during the last ten years have been more complete than in previous years.

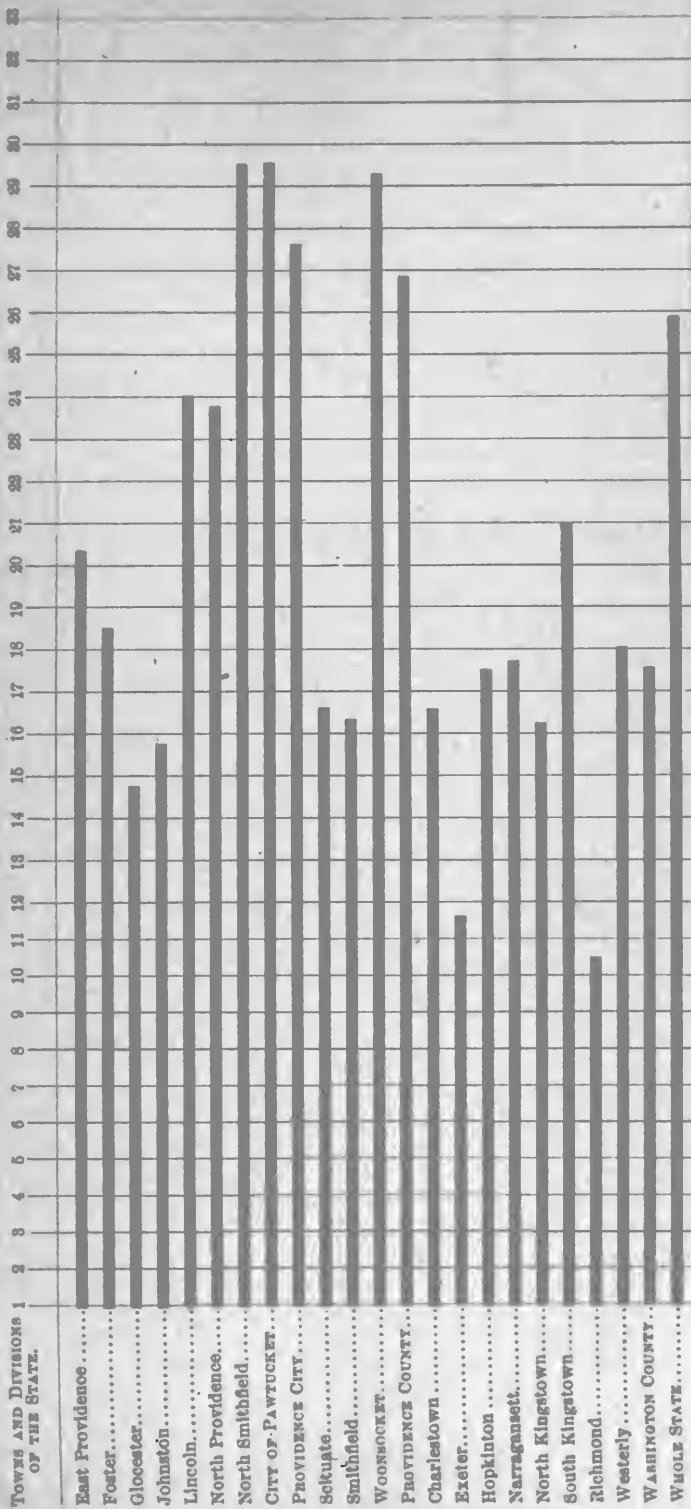


BIRTH RATES.

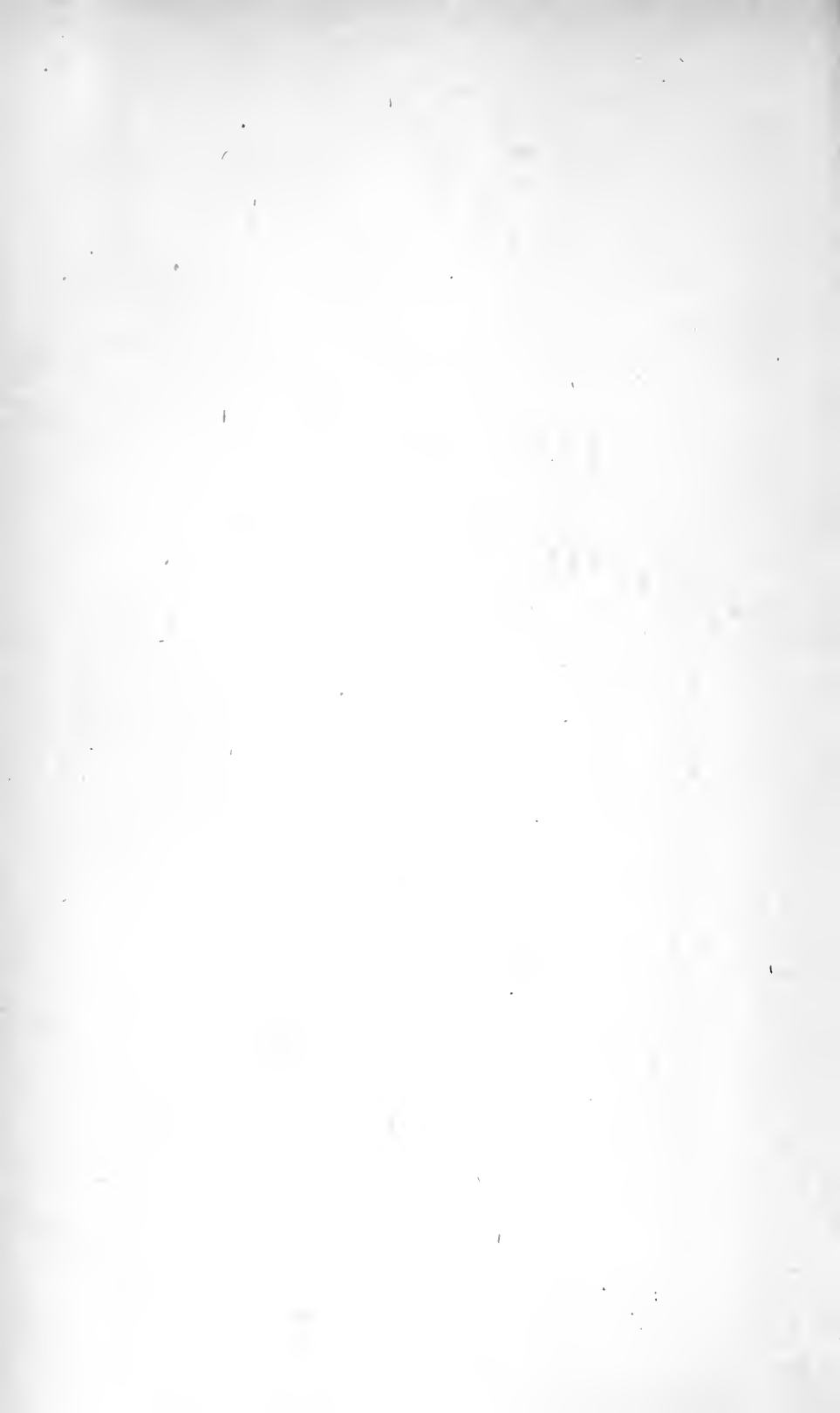
Diagram I.— Showing the Number of Births in every 1,000 of the Population, in each Town and each County in the State, during the Year 1898, computed upon an estimated Increase of the Population by the Census of 1895.

For explanation see foot-note on next page.





The figures at the top of the perpendicular lines indicate, in whole numbers, the number of births during the year in every 1,000 persons. The spaces are fractional parts of one. For instance, the heavy horizontal line against Barrington, at the top of this diagram, reaches across about eight-tenths of the space between the perpendicular lines 18 and 19. It shows the birth rate of Barrington, in 1898, was about eighteen and eight-tenths in every 1,000 of the population.



BIRTHS, 1898.

The general statistics of births in Rhode Island, during the year 1898, derived from the returns sent to the office of the State Registrar, may be found on pages 2 to 8, inclusive, in Tables I, II, and III.

The whole number reported is 10,730, as before stated, and is 65 less than the number in 1897.

SEX OF THE CHILDREN.

Of the 10,730 children whose births were registered in 1898, there were 5,443 males and 5,287 females. This gives 102.9 males to each 100 females, or 507.3 males and 492.7 females in each 1,000 children.

The following Table shows the number and sex, and the proportions of each sex, of the children born in Rhode Island, during the ten years 1854-1863, and in each of the last thirty-five years :

TABLE XVII.

Years.	Males.	Females.	Males to each	Per 1,000 Births
			100 Females.	Males. Females.
1854-1863.....	19,386.....	18,686.....	103.6, or.....	508.8 and 491.2
1864.....	1,949.....	1,942.....	100.3, or.....	509.9 and 499.1
1865.....	2,096.....	1,857.....	112.9, or.....	530.2 and 469.8
1866.....	2,546.....	2,356.....	108.0, or.....	519.4 and 480.6
1867.....	2,665.....	2,464.....	107.0, or.....	518.7 and 481.3
1868.....	2,745.....	2,627.....	104.5, or.....	511.0 and 489.0
1869.....	2,685.....	2,560.....	104.9, or.....	511.9 and 488.1
1870.....	2,679.....	2,536.....	105.6, or.....	513.7 and 486.3
1871.....	2,878.....	2,800.....	102.8, or.....	506.9 and 493.1
1872.....	3,085.....	3,058.....	100.8, or.....	502.2 and 497.8
1873.....	3,135.....	2,887.....	108.6, or.....	520.6 and 579.4
1874.....	3,311.....	3,155.....	104.9, or.....	512.1 and 487.9
1875.....	3,362.....	3,146.....	106.9, or.....	516.6 and 489.4
1876.....	3,291.....	3,038.....	108.3, or.....	520.0 and 480.0
1877.....	3,163.....	3,072.....	103.0, or.....	507.3 and 492.7
1878.....	3,402.....	3,312.....	102.7, or.....	506.7 and 493.3
1879.....	3,259.....	3,091.....	104.4, or.....	513.2 and 486.8
1880.....	3,241.....	3,054.....	106.8, or.....	514.8 and 485.2
1881.....	3,498.....	3,263.....	107.2, or.....	517.3 and 482.7
1882.....	3,509.....	3,316.....	105.8, or.....	514.1 and 485.9
1883.....	3,548.....	3,498.....	101.4, or.....	503.5 and 496.5
1884.....	3,718.....	3,592.....	103.4, or.....	508.3 and 491.7
1885.....	3,591.....	3,437.....	104.4, or.....	510.3 and 489.7

TABLE XVII.—Continued.

Years.	Males.	Females.	Males to each	
			100 Females.	Per 1,000 Births
			Males.	Females.
1886.....	3,897.....	3,724.....	104.6, or.....	511.3 and 488.7
1887.....	3,968.....	3,700.....	107.2, or.....	517.5 and 482.5
1888.....	4,023.....	3,817.....	105.4, or.....	513.1 and 486.0
1889.....	4,193.....	4,027.....	104.1, or.....	510.0 and 490.0
1890.....	4,351.....	4,199.....	103.5, or.....	508.8 and 491.2
1891.....	4,926.....	4,500.....	109.5, or.....	522.6 and 477.4
1892.....	4,765.....	4,555.....	105.8, or.....	514.1 and 485.9
1893.....	5,105.....	4,943.....	103.3, or.....	508.1 and 491.9
1894.....	5,129.....	4,856.....	105.6, or.....	513.7 and 486.3
1895.....	5,136.....	4,746.....	108.2, or.....	519.7 and 480.3
1896.....	5,461.....	5,289.....	103.3, or.....	508.0 and 492.0
1897.....	5,498.....	5,302.....	103.6, or.....	508.8 and 491.2
1898.....	5,443.....	5,237.....	102.9, or.....	507.3 and 492.7

The average proportion for forty-five years is 104.8 males to every 100 females. At the end of five years from birth the number of each sex is about equal, the males having a larger mortality during that period.

PROPORTION OF THE SEXES. *Localities.*

In Table II, on pages 6 and 7, will be found the number of children born in the different divisions of the State during the year 1898, together with the number of each sex.

The following Table will give more concisely the whole number of children born, arranged according to sex and locality, and the proportion of male children to every 100 female children :

TABLE XVIII.

BIRTHS, 1898.	Bristol County.	Kent County.	Newport County.	Providence County Towns.	Washington County.	Newport City.	Central Falls.	Pawtucket.	Providence City.	Woonsocket.	Whole State.
Males.....	152	501	76	788	225	287	291	524	2,182	417	5,443
Females.....	158	480	77	782	220	290	272	543	2,074	391	5,287
Total.....	310	981	153	1,570	445	577	563	1,067	4,256	808	10,730
Males to each 100 females	96.2	104.4	98.7	100.7	102.3	99.0	107.0	96.5	105.2	106.6	102.9

Compared with the previous year, the decrease in the proportion of male births in the whole State was 0.7 per cent.

The following Table exhibits the proportions of births of the sexes for the past thirty-six years in the larger divisions of the State and in the whole State :

TABLE XIX.

Number of Males to each 100 Females.

BIRTHS.	Bristol County.	Kent County.	Newport County.*	Providence County Towns.†	Providence City.	Washington County.	Whole State.
1863.....	120.0	98.4	97.0	101.8	111.4	108.7	105.8
1864.....	106.8	87.3	90.6	107.4	97.3	103.4	100.3
1865.....	119.3	118.2	108.8	118.8	113.8	88.1	112.9
1866.....	109.4	113.1	103.4	104.9	108.4	124.0	108.7
1867.....	115.5	98.3	117.8	106.3	104.5	120.4	107.7
1868.....	117.4	88.7	100.2	101.6	102.4	136.5	104.5
1869.....	115.7	116.7	102.7	98.0	107.5	120.6	104.9
1870.....	126.4	111.6	100.0	105.1	104.9	99.5	105.6
1871.....	131.8	97.9	132.5	100.8	95.2	113.3	102.8
1872.....	109.2	92.8	109.1	103.5	95.7	110.6	100.9
1873.....	129.2	113.0	117.9	104.5	109.0	104.7	108.6
1874.....	98.7	111.9	101.3	110.4	102.9	94.0	104.9
1875.....	95.2	103.1	97.7	104.3	109.1	134.3	106.9
1876.....	142.1	104.4	108.5	108.0	106.8	103.7	108.3
1877.....	138.7	102.4	98.5	100.3	104.9	95.3	103.0
1878.....	120.5	120.6	94.8	101.5	106.8	78.8	102.7
1879.....	124.3	95.5	103.6	105.4	105.7	106.3	105.4
1880.....	117.2	110.5	113.5	102.4	107.6	95.4	106.1
1881.....	91.2	111.3	102.0	105.9	109.0	115.7	107.2
1882.....	94.7	110.2	112.5	103.1	106.5	105.7	105.8
1883.....	94.0	97.6	97.0	103.5	102.2	102.2	101.4
1884.....	105.0	111.7	92.9	102.5	105.8	99.0	103.4
1885.....	132.2	107.3	98.0	104.8	103.6	104.3	101.4
1886.....	120.0	81.7	102.6	106.7	105.0	121.7	104.6
1887.....	115.1	121.7	106.6	103.9	107.9	106.7	107.2
1888.....	98.1	105.1	105.0	103.4	107.4	110.2	105.4
1889.....	81.9	122.0	107.5	103.6	101.4	110.2	104.1
1890.....	96.5	113.0	106.8	108.5	98.3	97.4	103.6
1891.....	107.1	110.4	118.4	107.0	109.1	106.4	109.5
1892.....	120.0	102.1	102.4	110.7	100.0	98.5	105.8
1893.....	90.7	101.8	97.7	104.1	104.1	109.0	105.8
1894.....	103.4	102.4	121.1	110.2	99.6	106.5	105.6
1895.....	118.4	116.3	100.8	105.0	109.6	115.6	108.2
1896.....	96.5	95.4	103.7	102.4	105.8	108.5	103.3
1897.....	101.2	108.4	97.5	103.9	104.4	96.2	103.6
1898.....	96.2	104.4	98.9	101.6	105.2	102.3	102.9

* Including city of Newport. † Including cities of Central Falls, Pawtucket, and Woonsocket.

There will be found in the following summary in the aggregate, the average number of males to each 100 females, born during the thirty-six years from 1863-1898, in the different divisions of the State :

Bristol County.....	111.1 males to each 100 females.
Kent County.....	105.6 males to each 100 females.
Newport County*.....	104.8 males to each 100 females.
Providence County Townst.....	104.9 males to each 100 females.
Providence City.....	104.9 males to each 100 females.
Washington County.....	107.1 males to each 100 females.
Whole State.....	108.0 males to each 100 females.

BIRTHS AND SEASON.

Table II, on pages 6 and 7 of this report, gives the number of births occurring in the different months of the year, in the several divisions of the State.

According to this Table, the greatest number of births in any one month, in 1898, occurred in August, and the largest in any quarter in the third.

The following table shows the total number of children born in the State of Rhode Island, according to the returns, in each quarter of each of the last six years; and also the aggregate number and the percentage of the aggregate of each quarter in forty-five years, from 1854 to 1898, inclusive :

TABLE XX.

QUARTERS.	1898.	1897.	1896.	1895.	1894.	1893.	1854-1898, inclusive.	
							Number.	Per cent.
January-March	2,686	2,749	2,604	2,260	2,368	2,374	68,844	23.72
April-June	2,562	2,386	2,461	2,345	2,511	2,291	68,604	23.64
July-September	2,802	2,983	2,790	2,704	2,524	2,674	76,043	26.20
October-December.....	2,680	2,677	2,895	2,573	2,582	2,709	76,749	26.44
Whole Year	10,730	10,795	10,750	9,882	9,985	10,048	290,240	100.00

Table XX presents results showing that, according to the registration of forty-five years, the average proportions of births to the whole number of births in the different quarters of the year were as follows :

* Including Newport city.

† Including Pawtucket, Central Falls, and Woonsocket.

January—March.....	337.2 in every 1,000 births.
April—June	336.1 in every 1,000 births.
July—September.....	262.0 in every 1,000 births.
October—December.....	264.4 in every 1,000 births.

The proportions of births in Rhode Island, in the different quarters of the year, to the whole number of births in 1898, were as follows :

1. January—March.....	25.0 per cent., or.....	250 in every 1,000
2. April—June	23.9 per cent., or.....	239 in every 1,000
3. July—September.....	26.1 per cent., or.....	261 in every 1,000
4. October—December	25.0 per cent., or.....	250 in every 1,000
First six months	489 births in every 1,000 of whole number.	
Second six months.....	511 births in every 1,000 of whole number.	

BIRTHS. *Sex and Season.*

In Table II, on pages 6 and 7, will also be found the number of births of *each sex* by months, as they occurred in the different divisions of the State, during the year 1898. From it we ascertain the number of *each of the sexes* born during each quarter of the year, with their relative proportions, and also the aggregates and proportions of the same for the whole State.

The following Table will present a summary of the quarterly periods, number of births, and proportions of the sexes, for the same year.

	Males.	Females.	Males to each 100 Females.	Per 1,000 each quarter.	
				Males.	Females.
1. January—March	1,382.....	1,304.....	106.0.....	515.....	485
2. April—June	1,296.....	1,266.....	102.1.....	506.....	494
3. July—September.....	1,420.....	1,382.....	102.7.....	507.....	493
4. October—December.....	1,345.....	1,335.....	100.7.....	502.....	498
<hr/>					
Whole Year.....	5,443.....	5,287.....	102.9.....	507.....	493

The following Table shows the number of male children born to every 100 female children, in each quarter of the last three years; and also the proportion of births of male children to each 100 female children born during six periods of five years each, from 1866 to 1895, inclusive :

TABLE XXI.

YEARS.	1898.	1897.	1896.	5 years, 1891 to 1895.	5 years, 1886 to 1890.	5 years, 1881 to 1885.	5 years, 1876 to 1880.	5 years, 1871 to 1875.	5 years, 1866 to 1870.
First Quarter	106.0	97.6	101.9	104.6	104.3	105.8	106.0	101.5	106.6
Second Quarter	102.4	108.7	101.6	107.3	105.4	104.8	102.7	104.7	107.3
Third Quarter	102.7	101.7	105.1	108.6	104.6	105.1	107.1	104.8	106.0
Fourth Quarter	100.7	107.7	104.2	105.8	106.5	102.5	108.2	106.5	104.8
Total Average	102.9	103.6	103.3	106.5	105.2	104.5	106.2	104.2	106.2

The above Table shows the variation of the proportions of the sexes in the different quarters in the different years, and seems to conclusively determine that season has very little, if any, influence in the causation of sex.

PARENTAGE.

By reference to Table I, page 4, in the division of births, there will be found the parentage of the children born in Rhode Island during the year 1898. It will be seen that of the whole number, 10,730, there were 3,413 of native parentage, 5,307 foreign, and 2,010 of mixed parentage.

By mixed parentage is meant the children born of native fathers and foreign mothers, and of foreign fathers and native mothers.

Of native fathers and foreign mothers there were 1,014, and of foreign fathers and native mothers, 996.

The following Table will show the number and parentage of the children born in the State and the variations of the same from year to year, in each of the last three years; and also the number and variations occurring in four periods of five years each, and two of ten years each, from 1858 to 1898, inclusive:

TABLE XXII.

PARENTAGE.	1898.	1897.	1896.	5 years, 1893 to 1897.	5 years, 1888 to 1892.	5 years, 1883 to 1887.	5 years, 1878 to 1882.	10 years, 1868 to 1877.	10 years, 1858 to 1867.
Native father and mother	3,413	3,453	3,422	16,762	16,511	15,001	14,169	25,645	20,321
Foreign father and mother	5,307	5,318	5,292	25,084	18,737	15,245	13,562	26,356	19,665
Native father, foreign mother ..	1,014	998	1,039	4,819	4,021	3,044	2,327	3,135	1,690
Foreign father, native mother ..	996	1,026	997	4,795	4,037	3,378	2,857	4,077	1,696
Parentage not stated									293
Total	10,730	10,795	10,750	51,460	43,306	36,668	32,945	59,213	43,665

The following Table of *percentages* will show, in a different and perhaps clearer way, the same changes that have occurred in the proportions of the births in the different classes of parentage during the last three years; and during forty-one years, from 1858 to 1898, inclusive, in four periods of five years each and two of ten years:

TABLE XXIII.

PARENTAGE.	1898.	1897.	1896.	5 years, 1893 to 1897.	5 years, 1888 to 1892.	5 years, 1883 to 1887.	5 years, 1878 to 1882.	10 years, 1868 to 1877.	10 years, 1858 to 1867.
Native father and mother.....	31.81	31.99	31.83	32.60	38.25	40.91	43.03	43.36	46.84
Foreign father and mother.....	49.46	49.26	49.23	48.73	43.14	41.58	41.23	44.53	45.36
Native father, foreign mother..	9.45	9.25	9.67	9.36	9.30	8.30	6.95	5.37	3.89
Foreign father, native mother..	9.28	9.50	9.27	9.31	9.31	9.21	8.79	6.74	3.91
Total	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00

The registration of births, in 1898, is of interest as showing a smaller proportion of children born of native fathers than of foreign fathers. A considerable number of those recorded as native fathers were themselves children of foreign parentage.

The percentage of children of mixed parentage was about the same, in 1898, as in the previous year.

The following table will present the percentages of children of native and of foreign-born fathers, and of native and foreign-born mothers, respectively, in each of the last three years, and in each of four periods of five years each and two of ten years each, from 1858 to 1898, inclusive:

TABLE XXIV.

CHILDREN WITH	1898.	1897.	1896.	5 years, 1893 to 1897.	5 years, 1888 to 1892.	5 years, 1883 to 1887.	5 years, 1878 to 1882.	10 years, 1868 to 1877.	10 years, 1858 to 1867.
Native fathers.....	41.26	41.21	41.50	41.96	47.56	49.21	50.08	48.73	50.73
Foreign fathers.....	58.74	58.76	58.50	58.04	52.44	51.79	49.92	51.27	49.26
Native mothers.....	41.09	41.49	41.10	41.91	47.57	49.91	51.79	50.10	50.75
Foreign mothers.....	58.91	58.51	58.90	58.09	52.43	50.09	48.21	49.90	49.25

The percentage of the children born of foreign fathers and of foreign mothers, during 1898, was about the same as in 1897.

The number of native fathers of children born, in 1898, was 1,876 less than the number of foreign fathers, and the number of native mothers was 1,912 less than of foreign.

BIRTHS OF COLORED CHILDREN.

The number of births of children of colored parentage reported for the year 1898 is 216. This number is 10 more than in 1897, and also 10 less than in 1896.

In regard to sex, the numbers and proportions were as follows, viz.: males, 105; females, 111; or 94.6 males to each 100 females.

As the number of colored persons in the State was, according to the census of 1895, 7,928, the ratio of births in this class would be 27.2 per thousand, or 1 to each 36.7 colored inhabitants.

The following summary will show the changes that have occurred from year to year, in the proportions of the sexes of colored children born in Rhode Island, during the last twenty-three years:

Years.	Whole Number.	Males.	Females.	Males to each 100 Females.
1876-1885.....	1,762.....	849.....	913.....	93.0
1886.....	212.....	117.....	95.....	123.0
1887.....	211.....	111.....	100.....	111.0
1888.....	202.....	109.....	93.....	117.2
1889.....	194.....	87.....	107.....	81.3
1890.....	183.....	89.....	94.....	94.6
1891.....	173.....	86.....	87.....	98.9
1892.....	182.....	94.....	88.....	106.8
1893.....	203.....	91.....	112.....	81.3
1894.....	221.....	113.....	108.....	104.6
1895.....	221.....	117.....	104.....	112.5
1896.....	226.....	104.....	122.....	85.2
1897.....	206.....	100.....	106.....	94.3
1898.....	216.....	105.....	111.....	94.6

The following Table will show the location, number, sex, etc., of colored births during 1898:

TABLE XXV.

Showing Number, Sex, etc., of Colored Births, 1898.

TOWNS AND CITIES.	Whole Number.	Males.	Females.	COUNTIES.
Barrington	1	.....	1	
Bristol.....	2	1	1	Bristol County..... 3
Warwick	3	3	.....	Kent County..... 3
Jamestown.....	3	.....	3	
NEWPORT CITY.....	34	17	17	
New Shoreham.....	1	.....	1	
Portsmouth	3	.....	3	Newport County.... 41
CENTRAL FALLS.....	3	.....	3	
Cranston	3	1	2	
East Providence.....	3	2	1	
Johnston	1	.....	1	
PAWTUCKET.....	5	2	3	
PROVIDENCE CITY.....	133	68	65	Providence County.. 148
Narragansett District.....	2	1	1	
North Kingstown.....	3	2	1	
South Kingstown	11	6	5	
Richmond	1	1	.....
Westerly	4	1	3	Washington County. 21
WHOLE STATE.....	216	105	111	216

NUMBER OF CHILD OF THE MOTHER.

^b In the following table will be found the number of the child of the mother born during 1898; that is, how many of the children born were reported as the first, second, or third child, etc., of their respective mothers. The statistics on this subject begin with the year 1857, and the following Table includes the children reported during the last six years, and also the total for forty-two years, 1857 to 1898, inclusive:

TABLE XXVI.

NUMBER OF THE CHILD OF THE MOTHER.	1893.	1894.	1895.	1896.	1897.	1898.	42 years, 1857-1898.
First.....	2,500	2,377	2,329	2,574	2,438	2,393	67,871
Second.....	1,981	2,026	2,008	2,125	2,098	2,059	55,280
Third.....	1,484	1,519	1,512	1,672	1,687	1,631	42,866
Fourth.....	1,138	1,106	1,129	1,233	1,291	1,310	32,350
Fifth.....	825	818	895	918	927	982	24,152
Sixth.....	608	578	640	666	712	715	17,705
Seventh.....	449	445	429	488	499	532	12,711
Eighth.....	297	306	304	337	342	378	9,038
Ninth.....	224	293	293	259	260	231	6,130
Tenth.....	160	148	148	161	180	180	4,175
Eleventh.....	107	112	102	123	132	105	2,599
Twelfth.....	81	73	65	71	89	80	1,678
Thirteenth.....	44	71	36	40	50	54	975
Fourteenth.....	23	28	27	26	37	33	517
Fifteenth.....	12	12	22	12	14	10	272
Sixteenth.....	9	12	5	13	6	5	142
Seventeenth.....	3	3	2	4	4	8	80
Eighteenth.....	1	4	2	3	.....	.....	35
Nineteenth.....	1	.....	2	3	2	3	24
Twentieth.....	.....	2	.....	.....	.....	.....	8
Twenty-first.....	1	.....	.....	.....	.....	.....	4
Twenty-second.....	.....	.....	.....	.....	.....	.....	2
Unstated.....	100	142	22	22	27	21	334
Total.....	10,048	9,985	9,882	10,750	10,795	10,730	278,948

There was a decrease of 65 in the whole number of births in 1898 from the number in 1897.

There are varying differences in the proportions of all classes in the different years.

The most of those in the class "Unstated" (number of the child of the mother) were French Canadians and Italians.

There were eight returns of births in the seventeenth and three in the nineteenth classes.

The proportion of each class to the whole number will be shown by the following Table, which gives the percentage of the children born in each of the last four years who were respectively the first, second, third, etc., children of the mothers; and which will also give the average percentage of each class of births in each of the

last four years, and also in two periods of ten years and two periods of five years comprising the thirty-one years from 1868 to 1898, inclusive :

NUMBER OF THE CHILD.	1898.	1897.	1896.	1895.	5 years, 1893 to 1897.	5 years, 1888 to 1892.	10 years, 1878 to 1887.	10 years, 1868 to 1877.
First.....	22.30	22.58	23.91	23.57	23.78	25.20	23.7	25.2
Second.....	19.19	19.43	19.77	20.32	19.90	19.77	19.1	20.7
Third.....	15.20	15.63	15.55	15.30	15.29	14.94	15.5	15.5
Fourth.....	12.20	11.96	11.47	11.42	11.45	11.10	11.7	11.4
Fifth.....	9.15	8.59	8.54	9.06	8.52	8.23	8.8	8.4
First to Fifth.....	78.04	78.19	79.27	79.67	78.94	79.24	78.8	81.1
Sixth and over, and unstated.....	21.96	21.81	20.63	20.33	21.06	20.76	21.2	18.9
Total.....	100.00	100.00	100.00	100.00	100.00	100.00	100.0	100.00

TABLE XXVII.

Showing the Ages of the Fathers and Mothers of Children born in 1898.

AGES OF FATHERS.	AGES OF MOTHERS.										No. of Fathers.			
	15 years.	16 years.	17 years.	18 years.	19 years.	20-25 years.	25-30 years.	30-35 years.	35-40 years.	40-45 years.		45-50 years.	50-55 years.	Unstated age.
18 years.....	1	1	1	1	...	2	1	...	...	...	...	...	...	7
19 years.....	1	...	6	8	5	7	1	...	1	...	...	...	...	29
20-25 years.....	1	14	14	67	98	769	162	16	1	1	...	1	...	1,141
25-30 years.....	5	1	22	35	45	1,109	1,401	239	29	2	...	...	...	2,888
30-35 years.....	...	1	2	6	17	332	1,078	1,106	158	18	1	...	...	2,749
35-40 years.....	...	...	...	3	8	91	397	718	719	84	1	...	...	2,021
40-45 years.....	...	...	...	1	...	23	85	242	451	256	12	...	...	1,073
45-50 years.....	...	...	...	...	...	15	29	101	161	168	28	...	...	505
50-55 years.....	...	...	...	...	...	3	3	14	47	57	9	...	...	133
55-60 years.....	...	...	...	...	...	1	3	6	7	15	4	...	...	36
60-65 years.....	...	...	...	...	...	...	1	1	7	2	...	...	...	11
65-70 years.....	...	...	...	...	...	...	2	...	...	1	...	...	...	3
70-75 years.....	...	...	...	...	...	...	...	...	2	...	...	...	...	2
Unstated.....	...	2	3	7	13	42	19	10	4	...	...	59	...	159
Number of Mothers...	8	19	48	128	186	2,394	3,182	2,453	1,593	604	55	1	59	10,730

The nativity of the mothers under 19 years was as follows: of the eight at 15 years, 4 were American, 2 were Italian, 1 was Canadian, and 1 Portuguese.

Of the nineteen at 16 years, 17 were American, 1 was Scotch, and 1 Italian.

Of the forty-eight at 17 years, 25 were American, 9 Italian, 6 Canadian, 3 Portuguese, 2 Armenian, 2 Swedish, and 1 Russian.

Of the one hundred and twenty-eight at 18 years, 81 were American, 20 Canadian, 8 Italian, 5 English, 4 Portuguese, 3 Russian, 2 Swedish, 1 Armenian, 1 Irish, 1 Nova Scotian, 1 Scotch, 1 Syrian.

The 10,730 children were divided as follows, to mothers of different age periods:

	Number of Mothers.	Per cent.
Under twenty years.....	389.....	3.63
Twenty, and under twenty-five.....	2,394.....	22.31
Twenty-five, and under thirty.....	3,182.....	29.65
Thirty, and under thirty-five.....	2,453.....	22.86
Thirty-five, and under forty.....	1,593.....	14.85
Forty, and under forty-five.....	604.....	5.63
Forty-five and over.....	56.....	.52
Unstated age.....	59.....	.55
<hr/>		
Total.....	10,730.....	100.00

PLURALITY BIRTHS.

The general statistics in relation to plural births, in Rhode Island, may be found on page 8, table III.

There were one hundred and fifteen cases during the year, one hundred and twelve of which were twins and three were triplets, thus making the number of two hundred and thirty-three children.

Of the 233 children of plural birth, 109 were males and 124 were females.

The cases occurred in the different divisions of the State as follows: Bristol county, 1; Kent county, 8; Newport county towns, 3; Newport city, 10; Providence county towns, 32*; Providence city, 50; Washington county, 8.

The following exhibit will show the parentage of children of plural birth in Rhode Island, in 1898, and number of each:

* Including Central Falls, Pawtucket, and Woonsocket.

Parents both native Americans.....	25
" " Australians.....	1
" " British Americans.....	2
" " French Canadians.....	17
" " born in England.....	2
" " " France.....	1
" " " Germany.....	2
" " " Ireland.....	12
" " " Italy.....	8
" " " Portugal.....	4
" " " Russia.....	3
" " " Scotland.....	2
" " " Sweden.....	1
Native father and British American mother.....	2
Native father and French Canadian mother.....	3
Native father and English mother.....	2
Native father and Irish mother.....	7
Belgian father and Irish mother.....	1
British American father and Irish mother.....	2
English father and American mother.....	1
English father and Irish mother.....	2
French Canadian father and American mother.....	2
German father and Swiss mother.....	1
Irish father and native mother.....	6
Irish father and English mother.....	1
Norwegian father and Swedish mother.....	1
Scotch father and British American mother.....	1
<hr/>	
Total births.....	115
<hr/>	
Total children.....	233

The months in which the plurality births occurred were as follows :

January.....18	April.....7	July.....14	October.....7
February.....9	May.....12	August.....12	November.....9
March.....10	June.....5	September.....4	December.....8
<hr/>			
First Quarter.....37	Second Quarter.....24	Third Quarter.....30	Fourth Quarter.....24
First half of year.....61		Second half of year.....54	
Total.....115			

The general statistics of births, and number of *cases* reported in Rhode Island during a period of forty-five years, that is, from 1854 to 1898, inclusive, are as follows :

285,740 cases of single births.....	giving	285,740 children.
3,015 cases of twin births.....	giving	6,030 children.
31 cases of triple births.....	giving	93 children.
1 case of quadruple births.....	giving	4 children.

Of the whole number of *cases* of child-birth (288,787) during the forty-five years, one in 95.8 produced twins, one in 9,316 produced triplets, and one in 288,787 produced quadruplets.

Of the whole number of children born during the same period (291,867), ascertained from the reports, one in every 48.4 was a twin; one in every 3,138 was a triplet.

Of the 3,047 *cases* of plurality births which have occurred in the State during the last forty-five years, there were 1,154 cases in which both parents were natives; 1,461 cases in which both parents were foreign; 423 cases in which the parents were mixed, that is, one native and one foreign parent; and 9 in which the parentage was not stated.

The whole number of children born in plurality cases, during the forty-five years, was 6,127, of whom 3,089 were males, and 3,034 were females; the sex of the remaining four was not given.

STILL-BORN.

The whole number of still-born children reported in Rhode Island, for the year 1898, was 413; this number is 10 less than for the year 1897.

The following are the numbers reported from the different divisions of the State:

Bristol County.....	11
Kent County.....	23
Newport County Towns.....	11
Newport City.....	31
Providence County Towns.....	60
Central Falls.....	8
Pawtucket.....	28
Providence City.....	208
Woonsocket.....	20
Washington County.....	13
Whole State.....	413

The following Table will give the number in each town from which still-births were reported, with the sex, parentage, and color:

TABLE XXVIII.

Still-Born, 1898, Locality, Number, Sex, Parentage, and Color.

TOWNS AND DIVISIONS OF THE STATE.	Total	SEX.		PARENTAGE.		COLOR.	
		Males.	Females.	Native.	Foreign.	White.	Colored.
Bristol	6	3	3	1	5	6	.....
Warren	5	4	1	2	3	5	.....
BRISTOL COUNTY.....	11	7	4	3	8	11	.....
Coventry	3	2	1	.....	3	3	.....
East Greenwich.....	1	1	.....	.....	1	1	.....
Warwick.....	19	11	8	10	9	19	.....
KENT COUNTY.....	28	14	9	10	13	23	.....
Little Compton.....	2	.....	2	2	.....	1	1
Middletown.....	2	2	.....	1	1	2	.....
NEWPORT CITY.....	31	22	9	18	13	27	4
New Shoreham.....	1	1	.....	1	.....	1	.....
Portsmouth	3	3	.....	3	.....	3	.....
Tiverton.....	3	2	1	2	1	3	.....
NEWPORT COUNTY.....	42	30	12	27	15	37	5
Burrillville	4	3	1	3	1	4	.....
CENTRAL FALLS.....	8	7	1	1	7	8	.....
Cranston.....	12	5	7	6	6	12	.....
Cumberland	8	7	1	3	5	8	.....
East Providence..	14	7	7	11	3	14	.....
Glocester.....	1	1	.....	1	.....	1	.....
Johnston.....	3	2	1	1	2	3	.....
Lincoln.....	12	7	5	.....	12	12	.....
North Providence.....	3	.....	3	.....	3	3	.....
PAWTUCKET.....	28	17	11	13	15	28	.....
PROVIDENCE CITY.....	208	112	96	77	131	193	15
Scituate	3	2	1	2	1	3	.....
WOONSOCKET.....	20	12	8	8	12	20	.....
PROVIDENCE COUNTY.....	324	182	142	136	198	309	15
Exceter	3	.....	3	3	.....	3	.....
North Kingstown.....	6	4	2	5	1	6	.....
South Kingstown.....	1	1	.....	1	.....	1	.....
Westerly	3	2	1	1	2	3	.....
WASHINGTON COUNTY.....	13	7	6	10	3	13	.....
Total.....	413	240	173	176	237	393	20

SUMMARY OF SEX OF STILL-BORN.

The following table shows the number and sex of the still-born children whose births were reported in Rhode Island during each of the last five years, and also of a period of forty-five years, extending from January 1, 1854, to December 31, 1898:

TABLE XXIX.

SEX.	1898.	1897.	1896.	1895.	1894.	Jan. 1, 1854, to Dec. 31, 1898.
Males	240	258	244	233	211	6,470
Females.....	173	165	180	144	181	4,591
Total.....	413	423	424	367	392	11,061

The average proportions of the sexes of the still-born, for the period of forty-five years, were as follows: In every 100 still-births there were about 58 males and 42 females.

Season of Still-Births.—During 1898 the proportions in relation to season, by percentage, were as follows:

	1898.		1898.
First Quarter.....	25.42	Third Quarter.....	22.52
Second Quarter.....	27.60	Fourth Quarter.....	24.46
Per cent. first half of the year.....	53.02	Last half of the year.....	46.98

The births of the still-born in the different months of the year, although somewhat variable in number, do not, as a rule, show great discrepancies.

PARENTAGE OF THE STILL-BORN.

Of the 413 still-born children reported in 1898 there were 176 of native, and 237 of foreign parentage, reckoned by the nativity of the fathers, that is, the father's name given: and 171 of native and 242 of foreign, reckoned by the nativity of the mothers, name of father given or not given.

ILLEGITIMATES.

In the following Table will be found the whole number of illegitimate births returned during 1898, with the sex, color, parentage, and locality of birth :

TABLE XXX.

Illegimates, 1898.

TOWNS.	Whole Number.	SEX.		COLOR.		PARENTAGE.		Alms-house and Penal Institutions.
		Males.	Females.	White.	Black.	Native.	Foreign.	
Bristol.....	1	1		1		1		
Warren.....	1		1	1			1	
West Greenwich.....	1		1	1		1		
Warwick.....	2	1	1	2		1	1	
NEWPORT CITY.....	8	1	7	7	1	7	1	2
Portsmouth.....	1		1	1		1		
CENTRAL FALLS.....	2	2		1	1	2		
Cranston.....	6	2	4	5	1	6		5
Cumberland.....	3	3		3		2	1	
East Providence.....	1	1		1		1		1
Foster.....	1	1		1		1		
Glocester.....	1	1		1		1		
Johnston.....	1	1		1		1		
Lincoln.....	1		1	1		1		
North Smithfield.....	1	1		1		1		
PAWTUCKET.....	2	1	1	2		1	1	
PROVIDENCE CITY.....	70	37	33	61	9	43	27	43
WOONSOCKET.....	3	2	1	3			3	
Charlestown.....	2		2	2		2		
Hopkinton.....	2		2	2		2		
Westerly.....	1	1		1		1		
WHOLE STATE.....	111	56	55	99	12	76	35	51

There were returns, during 1898, of 111 children of illegitimate parentage. The number is 17 less than that of the previous year.

Sex.—Of the 111, there were 56 males and 55 females.

Color.—Of the 111 illegitimates born during 1898, 99, or 89.2 per cent., were white; and 12, or 10.8 per cent., were colored.

Parentage.—Of the 111, 76, or 68.5 per cent. of all, were born of native mothers; and 35, or 31.5 per cent., of foreign born mothers. The colored illegitimates were all of native parentage. There were of the 99 white illegitimates, 64 born of native mothers, and 35 of foreign mothers.

The ages of the mothers were as follows:

Age.	No. of Mothers.	Age.	No. of Mothers.	Age.	No. of Mothers.
16.....	3	23.....	14	30.....	8
17.....	2	24.....	4	31.....	2
18.....	7	25.....	6	32.....	1
19.....	14	26.....	2	35.....	3
20.....	15	27.....	9	39.....	1
21.....	9	28.....	4	Unknown.....	1
22.....	4	29.....	2	Total.....	111

Fifty-one of the illegitimates were born of indigent, pauper, or criminal mothers, in public, charitable, or penal institutions.

Forty-three of these fifty-one births occurred at the Lying-in-Hospital, in the city of Providence.

The proportion of illegitimates to the whole number of births was about one in every 97 cases, or about ten in every 1,000.

MARRIAGES, 1898.

The number of marriages registered in Rhode Island, during the year 1898, was 3,278. This number is 49 less than in 1896, and 141 more than in 1897.

The general statistics of marriage, in 1898, in relation to season and number, in the different divisions of the State, may be found in Table IV, on the ninth page.

The statistics in relation to the proportion to population of persons married in 1898, in each of the towns and general divisions of the State, may be found in Tables XV and XVI, on pages 118 and 121.

The following Table will present the number of marriages, and the ratio of marriage to population, in each year for a period of thirty-nine years, 1860 to 1898, inclusive :

TABLE XXXI.

YEARS.	Number Marriages.	Of Population, one Person Married in every	Persons Married per 1,000 of Population.	YEARS.	Number Marriages.	Of Population, one Person Married in every	Persons Married per 1,000 of Population.
1860.....	1,748	50.0	20.0	1881.....	2,750	50.3	19.9
1861.....	1,533	56.8	17.6	1882.....	2,634	52.5	19.0
1862.....	1,450	61.1	15.1	1883.....	2,611	54.4	18.3
1863.....	1,618	54.7	18.3	1884.....	2,558	58.1	17.2
1864.....	1,844	50.1	19.9	1885.....	2,488	61.3	16.3
1865.....	1,896	48.7	20.5	1886.....	2,750	56.5	17.7
1866.....	2,318	39.9	25.1	1887.....	2,839	55.8	18.0
1867.....	2,344	39.8	25.1	1888.....	3,022	53.5	18.7
1868.....	2,285	40.5	24.8	1889.....	3,029	57.8	17.3
1869.....	2,289	47.5	21.1	1890.....	3,195	54.1	18.4
1870.....	2,362	46.0	21.7	1891.....	3,320	53.5	18.5
1871.....	2,336	46.5	21.5	1892.....	3,502	52.4	19.1
1872.....	2,537	42.9	23.2	1893.....	3,544	53.6	18.7
1873.....	2,630	41.3	24.2	1894.....	3,271	57.4	17.4
1874.....	2,541	50.8	19.6	1895.....	3,497	55.0	18.2
1875.....	2,485	52.0	19.2	1896.....	3,327	59.2	17.0
1876.....	2,253	57.3	17.5	1897.....	3,137	64.3	15.6
1877.....	2,282	56.6	17.7	1898.....	3,278	63.2	15.8
1878.....	2,324	55.7	17.9				
1879.....	2,396	57.8	17.5	Annual average..		53.7	18.4
1880.....	2,769	49.9	20.0				

SEASON.

The following Table will show the number and percentage of marriages in Rhode Island, in each month and each quarter of the year 1898, together with the aggregate number and percentage in each quarter for forty-five years, viz., from 1854 to 1898, inclusive :

TABLE XXXII.

MONTHS.	Number of marriages, each month, 1898.	Number of Marriages each Quarter, 1898.	Percentage of each Quarter to total Marriages, 1898.	Number of Marriages per Quarter, 45 yrs., 1854-1898.	Percentage each Quarter, 45 years.
January.....	267	1st Quarter... 675	20.59	1st Quarter... 23,536	21.48
February.....	256				
March.....	152				
April.....	321	2d Quarter... 918	28.00	2d Quarter... 28,284	25.82
May.....	201				
June.....	396				
July.....	186	3d Quarter... 749	22.85	3d Quarter... 25,627	23.39
August.....	231				
September.....	332				
October.....	342	4th Quarter.. 936	28.56	4th Quarter.. 32,118	29.31
November.....	384				
December.....	210				
Total.....		3,278	100.00	*109,585	100.00

The largest number of marriages in any one month, during 1898, occurred in the month of June. For thirty-eight years previous to 1892 the greatest number of marriages was in the month of November. Since then, with the exception of in 1895, the greatest number of marriages has been in the month of June. The rule has been as follows: the largest proportion in the last quarter; the next largest in the second quarter; followed by the third quarter; and, finally, the first quarter having the smallest proportion of any. In 1893, 1894, and 1896, the largest proportion was in the second quarter.

During 1898 the proportions in the different quarters, from the largest to the smallest, were as follows: fourth quarter, 29.31 per cent.; second quarter, 25.82 per cent.; third quarter, 23.39 per cent.; first quarter, 21.48 per cent.

NATIVITY OF PERSONS MARRIED.

The following Table shows the *number* of marriages, according to the naticities of the parties, for each of the last four years, and

* Including 30, date not given, recorded previous to 1860.

also for the aggregate of twenty-five years, from 1858 to 1882, inclusive; of five years, from 1883 to 1887, inclusive; of five years, from 1888 to 1892, inclusive; and of five years, from 1893 to 1897, inclusive:

TABLE XXXIII.

BIRTH-PLACE.	1898.	1897.	1896.	1895.	5 years, 1893 to 1897. Total.	5 years, 1888 to 1892. Total.	5 years, 1883 to 1887. Total.	25 years, 1858 to 1882. Total.
United States	1,522	1,494	1,587	1,649	7,846	7,813	7,157	33,553
Foreign countries.....	991	942	1,021	1,088	5,318	4,973	3,601	13,753
Native groom, foreign bride.....	402	344	363	390	1,785	1,637	1,323	3,488
Foreign groom, native bride.....	363	357	356	370	1,827	1,645	1,165	3,876
Not stated.....								64
Total.....	3,278	3,137	3,327	3,497	16,776	16,068	13,246	54,734

It will be understood that in the above enumerations the *parent nativity* of the persons married is not considered, but the country where born.

Parties born in the United States, although children of foreign born parents, are reckoned as natives.

In the following Table are given the *percentages* by birth, of native, foreign, and mixed marriages, in each of the last four years, and in the aggregate of five years, 1893 to 1897, inclusive; of five years, 1888 to 1892, inclusive; of five years, 1883 to 1887, inclusive; and of twenty-five years, 1858 to 1882, inclusive:

TABLE XXXIV.

BIRTH-PLACE.	1898.	1897.	1896.	1895.	5 years, 1893-1897.	5 years, 1888-1892.	5 years, 1883-1887.	25 years, 1858-1882.
United States.....	46.43	47.62	47.70	47.16	46.81	48.62	54.02	61.30
Foreign countries.....	30.23	30.03	30.69	31.11	31.65	30.95	27.19	25.13
Mixed nativity.....	23.34	22.35	21.61	21.73	21.54	20.43	18.79	13.57
Total.....	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00

It will be of some interest to notice that by the exhibit of the two preceding Tables it is shown that, although the marriages of

the native born (whether the issue of foreign born parents or natives) have, as a rule, *increased in numbers*, they have also steadily *decreased in proportion*, with two or three exceptional years, that is, to the whole number of marriages; while the marriages of the class of the exclusively foreign born have been, for the past thirty years, gradually increasing in proportion.

Denominational.—The 3,278 marriages in 1898 were performed by clergymen of various denominations, or by civil authority, as follows:

DENOMINATIONAL.

Roman Catholic.....	1,315	Evangelical	12
Baptist.....	507	Advent Christian.....	12
Protestant Episcopal	378	Primitive Methodist	10
Congregational.....	284	People's Mission	10
Methodist	274	Disciples of Christ	8
Free Baptist.....	91	Unitarian.....	7
Lutheran	75	Armenian	5
Universalist	67	Second Advent.....	5
Christian	47	Independent	4
Presbyterian	32	Friends' Ceremony.....	3
Justices of Supreme Court.....	31	Latter Day Saints.....	3
Hebrew	30	New Jerusalem	2
Advent.....	23	Warden of New Shoreham.....	1
Seventh Day Baptist.....	16	Denomination not stated.....	10
United Presbyterian	16	Total.....	3,278

AGES OF THE MARRIED.

In the following Table the varying ages of persons married during 1898 are presented:

TABLE XXXV.

AGES OF GROOMS.	AGES OF BRIDES.											Number of Grooms.	
	Under 20.	20 to 25.	25 to 30.	30 to 35.	35 to 40.	40 to 45.	45 to 50.	50 to 55.	55 to 60.	60 to 65.	65 to 70.		70 to 75.
Under 20.....	52	22	3	1	.....	.....	.....	.....	.....	.....	.....	.....	78
20 to 25.....	307	745	124	16	1	.....	.....	.....	.....	.....	.....	.....	1,193
25 to 30.....	102	495	361	69	12	3	.....	.....	.....	.....	.....	.....	1,042
30 to 35.....	22	112	146	92	27	5	1	.....	.....	.....	.....	.....	405
35 to 40.....	13	46	77	51	44	7	5	.....	.....	.....	.....	.....	243
40 to 45.....	4	14	25	23	30	17	6	.....	.....	.....	.....	.....	119
45 to 50.....	...	5	7	11	25	19	13	2	1	.....	.....	.....	83
50 to 55.....	1	3	7	4	5	11	11	10	1	1	.....	.....	54
55 to 60.....	...	3	3	1	5	3	5	8	2	1	.....	.....	31
60 to 65.....	.....	.....	.....	1	2	2	1	4	1	.....	.....	.....	11
65 to 70.....	.....	1	.....	1	.....	1	2	1	2	2	.....	.....	10
70 to 75.....	.....	.....	.....	.....	.....	.....	.....	2	1	2	.....	1	6
75 to 80.....	.....	.....	.....	.....	.....	.....	1	.....	2	.....	.....	.....	3
Number of Brides...	501	1,446	753	270	151	68	44	28	7	9	.....	1	3,278

The extreme discrepancies in the ages of some couples married in 1898 were not so frequent as in some previous years.

The same results in 1898, in relation to numbers in the different age periods, may be presented in a different and perhaps clearer way as follows :

TABLE XXXVI.

1898.	Under 20.	20 to 25.	25 to 30.	30 to 35.	35 to 40.	40 to 45.	45 to 50.	50 to 55.	55 to 60.	60 to 65.	65 to 70.	70 to 75.	75 to 80.
Males	78	1,193	1,042	405	243	119	83	54	31	11	10	6	3
Females	501	1,446	753	270	151	68	44	28	7	9	.....	1	.....
Total persons.....	579	2,639	1,795	675	394	187	127	82	38	20	10	7	3

The whole number of persons in each divisions of ages, of both sexes, married in Rhode Island in each of the last thirty-three years, that is, from 1866 to 1898, inclusive, is presented in the following Table :

TABLE XXXVII.

YEARS.	Under 20.	20 to 25.	25 to 30.	30 to 35.	35 to 40.	40 to 45.	45 to 50.	50 to 55.	55 to 60.	60 to 65.	65 to 70.	70 to 75.	75 to 80.	80 to 85.	85 to 90.	Not stated.
1866..	693	1,931	1,025	419	213	127	81	59	25	21	12	1	.....	.....	.....	23
1867.....	696	1,886	1,104	416	211	148	91	48	37	18	18	5	3	1	.....	9
1868.....	644	1,835	1,050	432	219	133	82	61	30	29	11	8	4	.....	.....	32
1869.....	642	1,814	1,051	468	237	134	79	46	35	15	11	2	3	2	.....	49
1870.....	744	1,883	1,084	415	216	159	86	64	26	24	12	3	2	.....	.....	6
1871.....	697	1,914	1,118	392	228	115	73	56	35	22	6	7	3	.....	.....	6
1872.....	786	2,073	1,182	434	237	131	81	61	43	21	13	6	1	.....	.....	5
1873.....	762	2,177	1,156	507	253	140	87	68	35	24	12	6	6	.....	.....	27
1874.....	770	1,992	1,179	459	268	159	101	52	36	39	8	9	1	.....	.....	9
1875.....	681	2,058	1,108	475	252	150	101	60	32	29	13	4	1	.....	.....	6
1876.....	691	1,741	1,041	450	224	154	80	53	27	19	12	1	2	.....	.....	9
1877.....	631	1,745	1,118	459	244	125	92	52	46	14	15	11	2	1	.....	9
1878.....	618	1,832	1,123	441	259	162	74	49	39	20	17	2	4	.....	.....	8
1879.....	639	1,879	1,156	481	272	123	78	56	39	26	18	9	2	2	1	11
1880.....	688	2,301	1,262	556	329	163	91	65	33	27	15	3	3	1	.....	1
1881.....	599	2,208	1,410	547	298	187	107	54	34	31	16	5	1	1	.....	2
1882.....	498	2,125	1,377	563	301	161	102	57	36	27	11	5	3	2	.....	.....
1883.....	497	2,108	1,370	486	319	183	115	73	31	20	14	3	2	1	.....	.....
1884.....	484	2,027	1,289	569	307	152	114	64	48	30	23	6	3	.....	.....	.....
1885.....	438	1,973	1,296	540	309	163	102	57	45	27	13	7	3	.....	1	2
1886.....	505	2,133	1,552	603	283	174	103	73	24	26	18	5	1	.....	.....	.....
1887.....	501	2,308	1,552	607	294	162	114	49	39	23	19	7	3	.....	.....	.....
1888.....	582	2,427	1,608	640	330	207	105	60	36	17	23	7	2	.....	.....	.....
1889.....	543	2,463	1,492	712	379	182	121	66	45	8	16	9	.....	2	.....	.....
1890.....	596	2,693	1,632	673	320	206	102	69	41	29	20	7	2	.....	.....	.....
1891.....	685	3,141	1,442	635	315	158	115	64	35	21	17	6	1	1	.....	4
1892.....	668	3,011	1,729	732	389	201	122	60	35	30	14	4	3	.....	.....	6
1893.....	676	2,777	1,869	776	436	237	133	79	47	39	9	8	.....	1	1	.....
1894.....	613	2,760	1,618	680	375	183	150	74	39	29	17	3	5	1	.....	.....
1895.....	607	2,763	1,887	767	417	227	142	83	49	22	12	13	4	1	.....	.....
1896.....	617	2,647	1,841	713	352	204	124	61	45	24	18	5	3	.....	.....	.....
1897.....	542	2,490	1,746	659	359	184	125	81	38	22	15	9	3	1	.....	.....
1898.....	579	2,639	1,795	675	394	187	127	82	38	20	10	7	3	.....	.....	.....

In the following Table will be found the number and proportion of the persons married under 20 years of age, both sexes, in eight

periods of five years each, from 1856 to 1895, inclusive; for the whole period of forty years, and in 1796, 1897, and 1898 :

TABLE XXXVIII.

5-YEAR PERIODS,	Total number of persons married.	Persons married under 20.	Percentage under 20.
1856-1860.....	15,838	3,294	20.79
1861-1865.....	16,682	2,406	14.42
1866-1870.....	23,196	3,419	14.74
1871-1875.....	25,058	3,696	14.75
1876-1880.....	24,048	3,267	13.59
1881-1885.....	26,082	2,516	9.65
1886-1890.....	29,670	2,727	9.19
1891-1895.....	34,268	3,249	9.48
40 years, 1856-1895.....	194,842	24,574	12.61
1896.....	6,654	617	9.27
1897.....	6,274	542	8.64
1898.....	6,556	579	8.83
Per cent., first fifteen years.....			16.37
Per cent., second fifteen years.....			12.60
Per cent., last three years.....			8.92

PROPORTION OF SEX.

Table exhibiting the percentages of GROOMS in each division of ages, in each of the last thirty-nine years :

TABLE XXXIX.

YEARS.	GROOMS.						Total.
	Under 20.	20 to 25.	25 to 30.	30 to 40.	40 to 50.	50 and over.	
1860.....	5.0	42.8	26.9	16.3	5.7	3.3	100.0
1861.....	4.6	44.5	25.4	15.5	5.8	4.2	100.0
1862.....	4.2	37.8	27.9	18.3	5.9	5.9	100.0
1863.....	3.5	38.0	29.6	17.2	5.8	5.9	100.0
1864.....	4.3	38.8	27.3	17.9	7.4	4.3	100.0
1865.....	3.5	37.0	28.4	18.9	7.5	4.7	100.0
1866.....	5.3	40.9	27.0	16.4	6.3	4.1	100.0
1867.....	4.3	40.1	27.9	16.8	6.8	4.1	100.0
1868.....	4.1	39.9	28.2	17.1	6.1	4.6	100.0
1869.....	4.3	39.6	27.7	18.5	6.1	3.8	100.0
1870.....	4.8	40.4	28.1	16.0	6.4	4.3	100.0
1871.....	5.3	40.1	28.9	16.5	4.9	4.3	100.0
1872.....	4.3	41.3	28.2	16.6	5.2	4.4	100.0
1873.....	3.8	42.4	26.7	17.0	6.0	4.1	100.0
1874.....	4.1	40.4	27.2	17.5	6.4	4.4	100.0
1875.....	3.5	40.9	27.8	17.6	6.1	4.2	100.0
1876.....	5.1	37.5	28.6	17.9	5.6	4.3	100.0
1877.....	4.3	36.0	30.2	18.7	5.9	6.9	100.0
1878.....	3.9	38.5	29.0	18.0	6.3	4.3	100.0
1879.....	3.9	37.8	28.8	19.3	5.4	4.8	100.0
1880.....	3.6	38.9	27.5	19.9	5.8	4.3	100.0
1881.....	2.8	37.2	29.7	19.5	6.8	4.0	100.0
1882.....	2.2	36.0	31.4	20.0	6.1	4.3	100.0
1883.....	2.9	36.2	31.7	17.7	7.2	4.3	100.0
1884.....	2.5	36.2	29.1	21.1	6.2	5.0	100.0
1885.....	2.6	34.7	30.2	20.9	6.8	4.8	100.0
1886.....	2.5	35.2	31.9	19.6	6.8	4.0	100.0
1887.....	1.7	37.1	31.6	19.6	6.2	3.8	100.0
1888.....	2.8	36.1	31.1	19.8	6.5	3.7	100.0
1889.....	2.3	37.6	27.8	21.3	6.6	4.4	100.0
1890.....	3.3	36.9	30.8	18.9	6.1	4.0	100.0
1891.....	3.2	44.7	26.4	17.2	5.2	3.3	100.0
1892.....	2.3	40.1	29.3	19.0	6.1	3.2	100.0
1893.....	2.9	35.3	30.7	21.0	6.3	3.8	100.0
1894.....	3.0	37.4	29.3	19.9	6.8	3.6	100.0
1895.....	2.2	36.0	30.6	21.0	6.3	3.9	100.0
1896.....	2.1	35.5	33.2	19.6	6.1	3.5	100.0
1897.....	2.3	35.5	32.6	19.3	6.3	4.0	100.0
1898.....	2.4	36.4	31.8	19.8	6.1	3.5	100.0

Table exhibiting the percentages of BRIDES in each division of ages, in each of the last thirty-nine years :

TABLE XL.

YEARS.	Under 20.	20 to 25.	25 to 30.	30 to 40.	40 to 50.	50 and over.	Total.
1860.....	25.8	44.1	17.0	9.1	2.6	1.4	100.0
1861.....	29.6	42.0	15.2	7.8	4.1	1.3	100.0
1862.....	21.9	41.3	16.7	11.8	4.1	1.2	100.0
1863.....	24.9	42.6	16.9	9.8	4.1	1.7	100.0
1864.....	24.2	43.4	17.8	10.3	2.9	1.4	100.0
1865.....	22.6	43.3	19.1	11.0	3.5	1.5	100.0
1866.....	24.7	42.9	17.4	11.0	2.7	1.3	100.0
1867.....	25.4	40.5	19.3	10.0	3.4	1.4	100.0
1868.....	24.4	40.9	18.1	11.6	3.3	1.7	100.0
1869.....	24.1	40.5	18.7	12.1	3.4	1.2	100.0
1870.....	26.8	39.4	17.9	10.8	3.9	1.2	100.0
1871.....	24.6	41.9	19.1	10.1	3.1	1.2	100.0
1872.....	26.7	40.5	18.4	9.9	2.2	1.3	100.0
1873.....	25.3	40.8	17.5	12.0	2.7	1.7	100.0
1874.....	26.3	38.1	19.3	11.1	3.9	1.3	100.0
1875.....	23.9	42.1	16.8	11.8	4.0	1.4	100.0
1876.....	25.6	39.8	17.6	12.0	3.7	1.3	100.0
1877.....	23.4	40.4	18.8	12.1	3.6	1.7	100.0
1878.....	22.7	40.4	19.3	12.2	3.8	1.6	100.0
1879.....	22.8	40.7	19.4	12.1	3.0	2.0	100.0
1880.....	21.1	41.2	18.0	12.0	3.3	1.4	100.0
1881.....	19.0	43.0	21.5	11.2	3.8	1.5	100.0
1882.....	16.7	44.8	20.9	12.6	3.9	1.1	100.0
1883.....	16.2	44.2	20.6	13.2	4.3	1.5	100.0
1884.....	16.4	43.0	21.3	13.2	4.2	1.9	100.0
1885.....	14.9	44.6	21.8	13.2	3.8	1.7	100.0
1886.....	15.8	42.4	24.5	12.5	3.3	1.5	100.0
1887.....	15.9	44.1	22.8	12.1	3.5	1.6	100.0
1888.....	16.1	44.3	22.1	12.4	3.7	1.1	100.0
1889.....	15.1	43.7	21.5	14.7	3.4	1.6	100.0
1890.....	15.4	47.3	20.4	12.0	3.6	1.3	100.0
1891.....	17.4	49.9	17.0	11.4	3.1	1.2	100.0
1892.....	16.8	45.9	20.1	13.0	3.1	1.1	100.0
1893.....	16.2	43.0	22.0	13.3	4.1	1.4	100.0
1894.....	15.7	47.0	20.0	12.3	3.4	1.6	100.0
1895.....	15.2	43.0	23.4	12.8	4.3	1.3	100.0
1896.....	16.4	44.1	22.1	12.4	3.8	1.2	100.0
1897.....	14.9	43.9	23.1	13.2	3.5	1.4	100.0
1898.....	15.3	44.1	22.9	12.9	3.4	1.4	100.0

BRIDES.

It will be noticed in the preceding tables that the proportions of persons married of both sexes, under 20 years of age, largely decreased during the last decade.

Of grooms, the proportion, compared with the first decade, has decreased nearly 40 per cent., and of females about 37 per cent.

The proportion of males married, between the ages of twenty and twenty-five, has decreased over 6 per cent., and has correspondingly increased in the more advanced age periods.

The proportion of females married, between twenty and twenty-five years of age, has not varied much, while of those between twenty-five and forty there has been an increase of proportion similar to that of males.

NUMBER OF TIMES MARRIED.

There will be found in the following Table the number of grooms and of brides who were married for the first, second, third, etc., time in 1898:

TABLE XLI.

	First Marriage.	Second Marriage.	Third Marriage.	Fourth Marriage.	Total.
Grooms	2,790	421	67	.....	3,278
Brides.....	2,896	365	16	1	3,278

The proportion of *grooms* married for the first time, in 1898, was 85.1 per cent. of the whole number, and the proportion of *brides* married for the first time was 88.3 per cent.

The following Table will show not only the number of times each of the parties was married, but also the number of bachelors and widowers who married spinsters, the number who married widows of first or second widowhood, etc., and of spinsters and widows who married bachelors, and widows of the second, third, or fourth marriage, etc.:

TABLE XLII.

GROOMS.	BRIDES.				Total Grooms.
	First.	Second.	Third.	Fourth.	
First marriage.....	2,605	182	3	.....	2,790
Second marriage.....	256	154	10	1	421
Third marriage.....	35	29	3	.....	67
Total brides.....	2,896	365	16	1	3,278

It will be seen, by Table XLII, that 185 bachelors married widows, 3 of whom married brides that had been twice widowed. Of the 488 widowers who married in 1898, 291 married spinsters, and 197 married widows. Of the widows who married widowers, 13 had been twice married previously, and 1 three times.

MARRIAGES OF PERSONS OF COLOR.

The number of marriages of persons of color in Rhode Island, in 1898, was 85. This includes seven marriages in which one of the parties was white. The number and color of the individuals was, therefore, 163 persons of color and 7 persons white. The white persons were females. The marriages, however, may be properly included in the above class, inasmuch as the offspring of such marriages are persons of color.

The number reported during 1898, from the different towns, was as follows, viz.:

Warren.....	2
Newport.....	13
Portsmouth.....	1
Central Falls.....	2
Providence City.....	62
Exeter.....	2
South Kingstown.....	2
Westerly.....	1
Total.....	85

MARRIAGES OF THE DIVORCED.

The following Table will give the towns from which returns of marriage with the facts of divorce were reported during 1898, the whole number of marriages of divorced persons, whether of one or both parties: also whether the second or third marriage of the divorced groom or bride:

TABLE XLIII.

TOWNS.	Number of Marriages.	Number of Divorced Persons Married.	Grooms.	Brides.	Second Marriage of Groom.	Third Marriage of Groom.	Second Marriage of Bride.	Third Marriage of Bride.
PROVIDENCE CITY.....	88	108	52	56	47	5	54	2
Barrington.....	2	2	.....	2	.....	.....	2	.....
Bristol.....	4	4	3	1	3	.....	1	.....
Warren.....	1	1	1	.....	1	.....	.....	.....
Coventry.....	2	3	2	1	2	.....	1	.....
Warwick.....	10	11	5	6	5	.....	5	1
NEWPORT CITY.....	6	6	3	3	3	.....	3	.....
Tiverton.....	1	1	.....	1	.....	.....	1	.....
Burrillville.....	3	3	2	1	1	1	1	.....
CENTRAL FALLS.....	5	5	3	2	3	.....	2	.....
Cranston.....	2	2	.....	2	.....	.....	2	.....
Cumberland.....	4	4	3	1	3	.....	1	.....
East Providence.....	5	6	1	5	1	.....	5	.....
Johnston.....	1	1	.....	1	.....	.....	1	.....
PAWUCKET.....	11	12	8	4	7	1	4	.....
Southgate.....	2	2	.....	2	.....	.....	2	.....
Smithfield.....	2	2	.....	2	.....	.....	2	.....
Woonsocket.....	5	5	3	2	3	.....	2	.....
Exeter.....	3	3	1	2	1	.....	2	.....
Hopkinton.....	4	4	2	2	1	1	2	.....
North Kingstown.....	1	1	.....	1	.....	.....	1	.....
Westerly.....	2	2	1	1	1	.....	1	.....
Total.....	174	188	90	98	62	8	95	3

There were 174 marriages, in 1898, in which one or both of the parties had been divorced.

The proportion of the *number of marriages* of which one or both of the parties had been divorced, to the whole number of marriages, was about one in every 19, or 5.3 per cent.

But the proportion of divorced *persons* married during 1898, to the whole number of persons married in the same year, was about one in every 35, or 2.9 per cent., or 29 in every 1,000.

The number of divorced persons married, in 1898, was one less than in the previous year.

These 174 marriages of divorced persons were performed by clergymen of the different denominations, or by civil authority, as follows:

Baptist.....	68	Roman Catholic.....	3
Methodist.....	29	Hebrew.....	2
Congregational.....	20	Advent.....	1
Universalist.....	13	Unitarian.....	1
Free Baptist.....	10	Lutheran.....	1
Justices of Supreme Court.....	8	Disciples of Christ.....	1
Christian.....	7	Independent.....	1
Protestant Episcopal.....	3	Second Advent.....	1
Presbyterian.....	3	Unknown.....	2

Marriage and Education.—Of the number of persons married, in 1898, 406 signed their marriage certificates with a mark. The following will show the number of males and females who did so, and their nativity:

	Whole No.	Native.	Foreign.
Males.....	191.....	41.....	150
Females.....	215.....	47.....	168
Total.....	406.....	88.....	318

DIVORCES, 1898.

According to the returns made to the Secretary of the State Board of Health (State Registrar) by the clerks of the Supreme Courts of the different counties of Rhode Island, the number of applications for divorce, during 1898, was six hundred and fifteen (615).

The number of divorces granted, during 1898, was four hundred (400).

There were 71 more applications, during 1898, than during the preceding year, and the number of divorces granted was 28 more.

Divorces are decreed for the following seven statute causes, viz.:

1. Adultery.
2. Extreme cruelty.
3. Wilful desertion for five years of either of the parties, or for a shorter period, in the discretion of the court.
4. Continued drunkenness.
5. Neglect or refusal to provide necessaries (having ability) for the subsistence of a wife.
6. Gross misbehavior and wickedness other than aforesaid.
7. Impotency.

Divorces are also decreed, or marriages set aside, in the discretion of the court, for ascertained affinity, consanguinity, idiocy, insanity, penitentiary crimes, and bigamous or otherwise illegal marriage.

The following Table shows the number of applications for divorce, and the number granted, in 1898, in each county of the State; also the causes alleged for the applications:

TABLE XLIV.

COUNTIES.	Number of Applications.		CAUSES ALLEGED.								Total Causes Alleged.	
	Number Granted.		Adultery.	Extreme Cruelty.	Willful Desertion.	Continued Drunkenness.	Neglect to Provide Necessaries, etc.	Other Gross Misbehavior.	Void Marriage.	Impotency.		Lived separate and apart for over 10 yrs.
Bristol.. .. .	14	7	4	2	0	2	10	3	.....	.....	.....	30
Kent.....	31	22	5	10	21	5	21	4	.....	.....	.....	66
Newport	19	19	7	6	8	3	13	5	.....	.....	.....	42
Providence.....	526	333	86	220	170	132	333	80	3	.....	.....	1,033
Washington.....	25	19	2	9	18	7	17	9	.....	.....	.....	62
Whole State	615	400	104	247	235	149	394	101	3	.....	.....	1,233

There were, during the year 1898, six hundred and fifteen (615) applications for divorce, and the whole number of causes alleged was twelve hundred and thirty-three (1,233). There was, therefore, an average of rather more than two causes alleged in each application.

The causes alleged why divorces should be granted in the applications, during 1898, were 187 more in number than in 1897.

In order to show the actual number of applications, and the number of divorces granted in each of the last twenty-six years, the following summary is presented:

	Applications for divorce.	Divorces granted.	Applications refused or continued or withdrawn.
1873.....	261.....	173.....	88
1874.....	276.....	242.....	34
1875.....	227.....	158.....	69
1876.....	254.....	196.....	58
1877.....	257.....	178.....	79
1878.....	258.....	196.....	62
1879.....	255.....	246.....	9
1880.....	347.....	273.....	74
1881.....	350.....	268.....	82
1882.....	339.....	271.....	68
1883.....	321.....	257.....	64
1884.....	330.....	266.....	54
1885.....	293.....	227.....	66
1886.....	336.....	257.....	79
1887.....	322.....	248.....	74
1888.....	304.....	224.....	80
1889.....	366.....	274.....	92
1890.....	327.....	244.....	83
1891.....	362.....	275.....	87
1892.....	412.....	296.....	116
1893.....	529.....	301.....	228
1894.....	506.....	280.....	226
1895.....	516.....	373.....	143
1896.....	526.....	363.....	163
1897.....	544.....	372.....	172
1898.....	615.....	400.....	215
26 years, total.....	9,423.....	6,858.....	2,565

The average annual proportion of decrees of divorce granted during the last twenty-six years, to the applications therefor, was 72.8 per cent.

During the last ten years the proportions were as follows :

Years.....	1889,	1890,	1891,	1892,	1893,	1894,	1895,	1896,	1897,	1898.
Per cent.....	74.8.....	74.6.....	76.0.....	71.8.....	56.9.....	55.3.....	72.3.....	69.0.....	68.4.....	65.0

The proportion of *divorces granted*, in 1898, to the whole number of marriages during the same year, was *one divorce* to every eight and two-tenths marriages.

The proportion of *applications for divorce* to whole number of marriages, during the year, was one *application* to every five and three-tenths marriages.

The following Table shows the number of divorces granted in each county, and the whole State, in each of the last thirty years, and the proportion of marriages to each divorce granted in each year:

TABLE XLV.

YEARS.	Bristol County.		Kent County.		Newport County.		Providence County.		Washington County.		Whole State.	
	Divorces Granted.	Marriages to one Divorce.	Divorces Granted.	Marriages to one Divorce.	Divorces Granted.	Marriages to one Divorce.	Divorces Granted.	Marriages to one Divorce.	Divorces Granted.	Marriages to one Divorce.	Divorces Granted.	Marriages to one Divorce.
1869.....	10	10.6	15	12.5	6	27.7	120	13.8	11	15.5	162	14.1
1870.....	3	22.7	18	11.8	6	26.3	152	11.3	21	9.3	200	11.8
1871.....	5	16.8	11	17.9	4	49.7	123	13.3	18	11.4	161	14.5
1872.....	8	10.2	13	15.7	8	22.9	149	12.6	22	8.9	200	12.7
1873.....	6	16.2	22	9.8	8	21.9	131	14.8	6	33.7	173	15.2
1874.....	10	8.9	20	8.0	6	29.0	190	10.0	16	11.6	242	10.5
1875.....	2	50.0	18	8.8	7	23.4	120	14.9	11	20.5	158	15.7
1876.....	6	14.5	15	12.8	7	20.5	148	11.1	20	8.8	190	11.5
1877.....	7	12.0	9	16.3	7	26.0	134	12.4	21	9.9	178	12.8
1878.....	4	26.0	11	13.3	13	12.8	156	10.9	12	17.3	196	11.9
1879.....	5	18.8	19	9.0	7	24.1	195	9.1	20	9.7	246	9.7
1880.....	8	12.1	23	9.4	11	17.6	208	9.7	23	17.0	273	10.1
1881.....	6	20.1	26	7.3	10	16.9	207	10.0	19	11.0	268	10.4
1882.....	6	15.0	18	10.3	15	13.0	221	8.9	11	16.2	271	9.7
1883.....	6	15.8	15	11.5	9	21.2	214	9.2	13	13.3	257	10.2
1884.....	4	16.7	20	8.0	12	15.7	209	9.3	21	8.2	266	9.6
1885.....	3	23.0	9	18.6	17	11.2	186	10.1	12	15.0	227	11.0
1886.....	5	16.0	17	11.0	15	12.3	194	10.9	26	7.3	257	10.7
1887.....	1	75.0	23	8.0	13	13.4	187	11.8	24	7.9	248	11.4
1888.....	5	15.8	14	13.5	4	46.0	188	12.5	13	16.5	224	13.5
1889.....	6	12.5	27	8.3	14	14.0	211	11.2	16	10.8	274	11.1
1890.....	4	27.5	19	12.1	1	232.0	196	12.3	24	8.8	244	13.0
1891.....	10	8.1	20	11.2	17	12.6	211	11.2	14	14.3	275	12.1
1892.....	2	49.5	19	12.4	20	11.6	226	11.6	19	10.4	296	11.8
1893.....	3	38.0	10	23.8	21	9.9	235	11.5	22	8.0	301	11.8
1894.....	7	16.0	22	9.0	18	12.3	207	12.4	26	6.8	280	11.7
1895.....	8	10.9	17	9.9	11	21.3	318	8.8	19	11.2	373	9.4
1896.....	7	12.4	21	7.5	18	11.3	304	8.8	13	16.1	363	9.2
1897.....	9	9.3	20	8.5	16	12.9	306	8.1	21	9.7	372	8.1
1898.....	7	12.1	22	9.3	19	9.9	323	7.8	19	9.8	400	8.2

The ratio of divorces granted in the entire State, during 1898, to the whole number of marriages during the same year, was one divorce to about every eight and two-tenths marriages, as previously stated.

During the ten years 1869 to 1878, inclusive, the ratio of divorce to number of marriages was one divorce to every thirteen; during the ten years 1879 to 1888, inclusive, the ratio was one divorce to every ten and six-tenths marriages.

The average of the last ten years was one divorce to about every ten and four-tenths marriages.

During the thirty years 1869-1898 the average proportions of divorce to marriage, in the several counties and the State, have been as follows:

Bristol County.....	One divorce to every 20.8 marriages.
Kent County.....	One divorce to every 11.7 marriages.
Newport County.....	One divorce to every 29.9 marriages.
Providence County.....	One divorce to every 10.9 marriages.
Washington County.....	One divorce to every 12.1 marriages.
Whole State.....	One divorce to every 11.4 marriages.

Table showing the Number of Marriages to every Decree of Divorce, in five of the New England States, during the twenty-two years from 1877 to 1898, inclusive.

TABLE XLVI.

STATE.	1877.	1878.	1879.	1880.	1881.	1882.	1883.	1884.	1885.	1886.	1887.	1888.	1889.	1890.	1891.	1892.	1893.	1894.	1895.	1896.	1897.	1898.	
Rhode Island....	12.8	11.9	9.7	10.1	10.4	9.7	10.2	9.6	11.0	10.7	11.4	13.5	11.4	13.0	12.1	11.8	11.8	11.7	9.4	9.2	8.4	8.4	8.2
Maine.....																10.4	9.2	8.3	8.4	8.3	7.4	.....	.....
New Hampshire.....				7.7	9.2	10.9	12.7	10.4	10.9	8.3	10.7	8.7	9.8	9.5	9.5	11.7	10.3	12.6	9.9	9.9	8.8	8.5	8.5
Vermont.....	15.0	14.0	21.0	20.0	16.0	17.8	16.4	13.5	28.8	20.0	13.5	16.9	19.6	18.3	17.1	17.4	15.9	12.3	9.7	11.2	11.9	.....	.....
Massachusetts...	23.1	21.4	23.4	26.8	40.9	34.3	27.8	28.2	26.4	30.0	21.5	30.6	26.9	31.8	27.1	28.5	21.8	18.6	24.2	14.7	20.5	17.7	.....
Connecticut.....	10.1	10.7	13.4	13.9	11.6	12.8	12.1	14.9	13.3	14.2	14.9	13.8	10.7	13.2	13.7	13.2	16.6	15.9	15.9	14.5	16.0	15.5	.....

DEATHS, 1898.

The number of deaths registered in Rhode Island, during 1898, according to the returns made to the State Registrar, was six thousand, nine hundred and five (6,905).

This number is smaller by 599 than that of the year 1896, and is 205 less than that of 1897.

The death rate (16.7 in every 1,000 living persons) was nine-tenths less than that of the previous year.

The following summary will show the death rates per 1,000 for each of the last five census years, in comparison with the last five years :

1875.	1880.	1885.	1890.	1895.	1891.	1895.	1896.	1897.	1898.
16.7.....	17.5.....	17.7.....	20.7.....	19.6.....	19.1.....	19.6.....	19.1.....	17.6.....	16.7

Since 1876 the returns have been more complete than previously, and during the last ten years few deaths have occurred in the State which were not reported.

On the following page will be found the death rates, by counties, for thirty-eight years :

TABLE XLVII.

Death rates per 1,000 living, by counties, for thirty-eight years, from 1861 to 1898, inclusive; also the average rate of each period of five years each, from 1861 to 1895, inclusive, for the whole State.

YEARS.	Bristol.	Kent.	Newport.	Providence.	Washington.	State.	STATE.
							ANNUAL AVERAGE OF FIVE-YEAR PERIODS, 1861-1895.
Five years, 1861-1865.....	17.7	15.9	18.9	17.7	12.4	17.1	...17.1 per 1,000 living.
1866.....	19.2	14.2	17.3	16.6	11.4	16.1	
1867.....	17.0	15.1	15.0	16.4	10.9	15.6	
1868.....	15.7	13.7	14.7	17.0	10.0	15.7	...15.6 per 1,000 living.
1869.....	17.9	16.7	13.2	16.0	12.8	15.6	
1870.....	15.5	13.5	14.1	15.5	12.0	14.9	
1871.....	16.3	17.5	12.2	15.9	12.3	15.4	
1872.....	21.1	16.1	14.5	21.2	14.7	19.1	
1873.....	18.4	13.8	19.0	22.0	15.1	20.2	...17.5 per 1,000 living.
1874.....	14.7	13.2	10.8	17.7	13.7	16.3	
1875.....	14.9	14.9	13.5	17.5	15.5	16.7	
1876.....	14.7	11.7	13.5	16.8	15.9	15.9	
1877.....	18.2	13.1	12.4	18.7	12.8	17.2	
1878.....	17.5	14.2	13.7	18.3	13.0	17.2	...16.8 per 1,000 living.
1879.....	13.2	15.1	14.8	17.2	11.1	16.2	
1880.....	19.2	14.9	14.5	18.5	12.7	17.5	
1881.....	17.9	16.5	15.7	19.3	11.9	18.1	
1882.....	16.5	15.3	17.2	19.7	11.0	18.4	
1883.....	17.7	14.6	17.7	20.8	9.8	19.1	...18.0 per 1,000 living.
1884.....	17.7	17.1	14.5	17.8	12.6	16.9	
1885.....	16.3	16.4	14.5	18.5	14.0	17.7	
1886.....	19.2	17.5	15.0	19.2	15.0	18.8	
1887.....	18.2	15.5	15.1	21.1	15.5	19.9	
1888.....	21.3	18.4	18.0	21.0	16.0	20.4	...19.8 per 1,000 living.
1889.....	17.6	20.1	14.7	19.2	14.6	19.0	
1890.....	22.1	17.6	16.5	22.1	13.5	20.7	
1891.....	20.5	18.0	20.6	18.6	12.6	19.6	
1892.....	20.0	20.7	20.1	20.2	15.2	20.1	
1893.....	19.9	19.4	17.9	19.9	12.6	19.6	...19.6 per 1,000 living.
1894.....	16.5	19.8	16.9	19.1	16.4	19.1	
1895.....	20.9	17.4	15.9	20.1	15.0	19.6	
1896.....	17.9	18.8	17.0	19.2	15.3	19.1	
1897.....	18.6	16.7	16.2	17.6	14.7	17.6	
1898.....	15.0	15.6	15.5	16.7	14.5	16.7	
Annual average, thirty-five years, 1861-1895.....							...17.8 per 1,000 living.

SEX OF DECEDENTS.

Of the 6,905 persons whose deaths were returned, during the year 1898, 3,554 were males, and 3,351 were females; the ratio standing at 106.1 males to each 100 females, or about 515 males and 485 females in every 1,000 decedents.

The following Table will show the number and proportion of males and females among the *decedents* in Rhode Island, during the ten years 1853 to 1862, inclusive; also in each of the thirty-six years from 1863 to 1898, inclusive, and for the entire period of forty-six years:

TABLE XLVIII.—DEATHS.

	Males.	Females.	Males to every 100 females.
10 years, 1853-1862.....	10,930.....	11,269.....	96.9
1863.....	1,621.....	1,586.....	102.2
1864.....	1,633.....	1,727.....	92.4
1865.....	1,686.....	1,719.....	98.1
1866.....	1,497.....	1,473.....	101.5
1867.....	1,442.....	1,447.....	99.7
1868.....	1,413.....	1,499.....	94.3
1869.....	1,696.....	1,686.....	100.6
1870.....	1,588.....	1,650.....	96.2
1871.....	1,621.....	1,723.....	94.1
1872.....	2,118.....	2,129.....	99.4
1873.....	2,166.....	2,237.....	95.5
1874.....	2,111.....	2,118.....	99.7
1875.....	2,108.....	2,209.....	95.4
1876.....	1,969.....	2,147.....	91.7
1877.....	2,132.....	2,318.....	92.0
1878.....	2,161.....	2,280.....	94.8
1879.....	2,183.....	2,289.....	95.4
1880.....	2,366.....	2,463.....	96.0
1881.....	2,467.....	2,549.....	96.8
1882.....	2,487.....	2,587.....	96.5
1883.....	2,627.....	2,655.....	99.0
1884.....	2,486.....	2,655.....	93.6
1885.....	2,607.....	2,782.....	93.7
1886.....	2,833.....	3,016.....	93.9
1887.....	3,177.....	3,163.....	100.4
1888.....	3,199.....	3,395.....	95.4
1889.....	3,093.....	3,166.....	97.7
1890.....	3,501.....	3,433.....	102.0
1891.....	3,341.....	3,279.....	101.9
1892.....	3,725.....	3,671.....	101.5
1893.....	3,789.....	3,651.....	103.8
1894.....	3,559.....	3,601.....	98.8
1895.....	3,799.....	3,736.....	101.6
1896.....	3,874.....	3,630.....	106.7
1897.....	3,587.....	3,523.....	106.7
1898.....	3,554.....	3,351.....	106.1
46 years.....	102,146.....	103,812.....	98.4

The following table of *births*, during the same period of time as the preceding, will show by comparison the different proportions of the sexes in the two classes of events :

TABLE XLIX.—BIRTHS.

	Males.	Females.	Males to every 100 females.
10 years, 1853-1862	18,377	17,260	106.4
1863	1,802	1,788	105.8
1864	1,949	1,942	100.3
1865	2,096	1,857	112.9
1866	2,546	2,256	108.0
1867	2,655	2,464	107.0
1868	2,745	2,627	104.5
1869	2,685	2,500	104.9
1870	2,679	2,536	104.9
1871	2,878	2,800	105.8
1872	3,085	3,058	100.9
1873	3,135	2,887	108.6
1874	3,311	3,155	104.9
1875	3,362	3,146	106.9
1876	3,291	3,038	108.3
1877	3,163	3,072	103.0
1878	3,402	3,312	102.7
1879	3,259	3,001	105.4
1880	3,241	3,054	106.1
1881	3,498	3,263	107.2
1882	3,509	3,316	105.8
1883	3,548	3,498	101.4
1884	3,713	3,592	103.4
1885	3,591	3,437	104.4
1886	3,897	3,724	104.6
1887	3,968	3,700	107.4
1888	4,033	3,817	105.4
1889	4,193	4,027	104.1
1890	4,351	4,199	103.2
1891	4,926	4,500	109.5
1892	4,765	4,505	109.3
1893	5,105	4,943	103.3
1894	5,129	4,856	105.6
1895	5,136	4,746	108.2
1896	5,461	5,289	103.3
1897	5,493	5,302	103.5
1898	5,443	5,287	102.9
46 years	149,500	142,004	105.3

SEASON AND MORTALITY.

The whole number of decedents, and the sex of the same, in each month of the year 1898, and in each division of the State, may be found in Table V, on the tenth and eleventh pages.

The influence of season upon mortality may be further illustrated by the following Table, which shows the number and percentage of deaths, compared with the whole number of deaths, in each quarter of each of the last five years, and in the aggregate for forty-five years, 1853 to 1897, inclusive:

TABLE L.

SEASON.	1898.		1897.		1896.		1895.		1894.		45 years, 1853-1897.	
	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.
January-March .	1,627	23.56	1,937	27.24	1,833	24.43	1,962	26.04	1,919	26.80	47,004	24.38
April-June	1,643	23.79	1,540	21.66	1,856	24.73	1,673	22.20	1,696	23.69	42,029	21.80
July-September .	1,998	28.94	2,024	28.47	2,212	29.48	2,091	27.75	2,056	28.71	55,526	28.80
Oct.-December..	1,637	23.71	1,609	22.63	1,603	21.36	1,809	24.01	1,489	20.80	48,235	25.02
Total	6,905	100.00	7,110	100.00	7,504	100.00	7,535	100.00	7,160	100.00	192,794	100.00

Comparing the percentages of 1898 with those of the forty-five years, we find that of the first quarter is .82 per cent. smaller; the second quarter is 1.99 per cent. larger; the third quarter .14 per cent. larger; and the last quarter 1.31 per cent. smaller than for the average of the forty-five years. The greatest mortality for any one season of any year is usually found in the third quarter, but in 1890, owing in large measure to the epidemic of influenza, the first quarter had the largest mortality.

TABLE LI.

Showing the Months in the Order of Largest Mortality for Eight Years.

	1898.	1897.	1896.	1895.	1894.	1893.	1892.	1891.
1. August.....	730	August..... 755	July..... 836	March..... 579	July..... 833	July..... 738	January..... 925	December..... 783
2. September... 673	February... 721	August..... 810	July..... 743	January..... 799	August... .. 719	July..... 802	July..... 802	August..... 747
3. July..... 595	September... 617	March..... 635	August... .. 738	August..... 628	April..... 681	August..... 739	August..... 739	July..... 579
4. December... 589	July..... 642	April..... 634	April..... 630	September... 595	March..... 651	September... 699	September... 699	September... 564
5. March..... 582	March..... 619	May..... 626	October... .. 629	April..... 578	January..... 611	February... .. 595	February... .. 595	October..... 532
6. April..... 576	January..... 597	January..... 617	September... 610	May..... 569	May..... 635	March..... 582	March..... 582	May..... 530
7. May..... 568	October... .. 572	June..... 596	December... .. 610	March..... 561	December... .. 621	May..... 561	May..... 561	November... .. 506
8. October..... 543	December... .. 559	February... .. 581	February... .. 606	February... .. 559	September... 617	April..... 559	April..... 559	April..... 505
9. January..... 540	April..... 538	September... 566	January..... 577	June..... 519	February... .. 572	December... .. 528	December... .. 528	March..... 503
10. November... 509	May..... 530	December... .. 551	November... .. 576	October..... 520	October..... 547	June..... 501	June..... 501	June..... 469
11. February... 505	June..... 482	October..... 556	May..... 562	December... .. 502	June..... 511	November... .. 491	November... .. 491	January..... 468
12. June..... 499	November... .. 478	November... .. 486	June..... 481	November... .. 467	November... .. 501	October..... 490	October..... 490	February..... 451
	6,905	7,110	7,501	7,555	7,160	7,410	7,396	6,930

NATIVITY OF DECEDENTS.

There may be found in Table I, on pages 2-5, the number of decedents in 1898, by division of the two classes of native and foreign born.

Of the whole number of decedents, 6,905, 4,957 were native born, that is, were born in the United States, and 1,948 were born outside of the United States.

PARENTAGE OF DECEDENTS.

Of the whole number of decedents, 6,905, reported in 1898, 2,938 were of native, and 3,967 were of foreign and unknown parentage.

By the term "foreign *parentage*" is meant the decedents whose *fathers* were born in some other country and not in the United States. The grandchildren of the foreign born are reckoned as of native parentage, if their fathers were born in the United States.

The following eleven towns reported a larger number of decedents of foreign *parentage* than of native, namely: Warren, Warwick, Burrillville, Central Falls, Cumberland, Johnston, Lincoln, North Providence, North Smithfield, Pawtucket, Providence, and Woonsocket; also the State Institutions at Cranston.

These numbers varied from a moderate excess to three or four times as many of foreign as of native *parentage*.

The following Table gives the number and proportion in every one thousand deaths of decedents of native and of foreign *parentage*, in each of the last five years; and in the aggregate for forty years, or from 1858 to 1897, inclusive:

TABLE LII.

PARENTAGE.	1898.		1897.		1896.		1895.		1894.		40 years, 1858-1897.	
	Number.	Per 1,000.	Number.	Per 1,000.	Number.	Per 1,000.	Number.	Per 1,000.	Number.	Per 1,000.	Number.	Per 1,000.
Native	2,938	425.5	3,102	436.3	3,088	411.5	3,244	430.5	3,054	426.5	103,927	503.5
Foreign.....	3,967	574.5	4,008	563.7	4,416	588.5	4,291	569.5	4,106	573.5	102,579	496.7
Total	6,905	1000.0	7,110	1000.0	7,504	1000.0	7,535	1000.0	7,160	1000.0	206,506	1000.0

AGE OF DECEDENTS.

In Table I, on pages 2-5, may be found the aggregate and average age of all the decedents whose deaths occurred in 1898, and with the age of each sex, in each town and county in the State.

By that Table it will be seen that the average age of all the male decedents in the State, in 1898, was 34.34 years, and that the average age of all the female decedents, in the same year, was 36.34 years; the average age of all decedents, of both sexes, was 35.31 years.

The average age of the total decedents in the State, in 1898, was six one-hundredths of a year less than the average for 1897.

The average age of the male decedents, in 1898, was greater by sixty-three one-hundredths of a year, and the average age of the female decedents was sixty-two one-hundredths of a year less than in the previous year.

The following Table will present, separately, the average age of the male and female decedents, and the average age of all decedents in each year for thirty-eight years; also the average age in seven periods of five years each, from 1861 to 1895, inclusive:

TABLE LIII.

YEARS.	Average Age of Males.	Average Age of Females.	Average Age of All.	Average Age, 5-year periods, 1861-1895.
1861.....	26.95	30.58	28.82	
1862.....	29.64	32.65	31.15	
1863.....	28.20	30.86	29.56	.....29.32
1864.....	28.13	30.43	29.40	
1865.....	26.38	28.97	27.69	
1866.....	31.13	35.07	33.09	
1867.....	32.16	35.86	34.01	
1868.....	30.47	35.08	32.85	.....32.42
1869.....	28.62	31.29	30.25	
1870.....	31.02	32.75	31.90	
1871.....	32.57	34.43	33.52	
1872.....	28.41	31.15	29.77	
1873.....	26.18	28.62	27.42	.....30.16
1874.....	28.03	31.66	28.86	
1875.....	29.72	32.75	31.27	
1876.....	31.47	33.21	32.37	
1877.....	29.25	31.56	30.45	
1878.....	29.02	31.11	30.09	.....31.21
1879.....	31.29	33.24	32.29	
1880.....	29.62	32.06	30.86	
1881.....	30.99	34.07	32.55	
1882.....	31.33	35.57	33.50	
1883.....	33.64	37.44	35.55	.....33.99
1884.....	32.29	35.12	33.76	
1885.....	33.53	35.00	34.59	
1886.....	33.02	34.91	34.01	
1887.....	30.97	32.91	31.95	
1888.....	33.17	35.74	34.53	.....33.42
1889.....	32.20	35.74	34.00	
1890.....	31.04	34.26	32.62	
1891.....	32.70	36.28	34.47	
1892.....	32.96	37.75	35.34	
1893.....	30.97	33.99	32.46	.....33.96
1894.....	32.47	34.40	33.44	
1895.....	31.70	36.49	34.08	
1896.....	30.86	34.47	32.61	
1897.....	33.71	37.06	35.37	
1898.....	34.34	36.34	35.31	

The above Table shows that the average longevity of the decedents in Rhode Island increased nearly five years, during a period of thirty-five years, ending with 1895.

The following Table will present some of the facts of the preceding as occurring in the different divisions of the State, as well as of the State at large. It will show the average age of the decedents in each of the larger divisions of the State, in each of the last four years, and also the average of each of seven periods of five years each, comprising the thirty-five years from 1863 to 1897, inclusive :

TABLE LIV.

DIVISIONS OF THE STATE.	1898.	1897.	1896.	1895.	1863-1897, 5 years.	1868-1897, 5 years.	1863-1887, 5 years.	1878-1882, 5 years.	1873-1877, 5 years.	1868-1872, 5 years.	1863-1867, 5 years.
Bristol County.....	40.09	37.84	40.88	43.94	42.78	39.76	38.45	36.68	33.61	35.12	34.78
Kent County.....	32.71	31.79	30.92	33.15	31.07	32.22	37.66	37.11	36.20	34.77	35.81
Newport County.....	39.57	41.37	37.27	39.22	39.98	40.63	42.41	39.21	40.68	40.04	33.54
Providence County*....	32.18	33.98	29.74	31.90	30.79	31.63	31.83	30.60	28.46	25.26	29.16
Providence City.....	33.18	33.44	31.33	31.76	32.03	33.44	32.19	29.50	27.19	25.45	28.50
Washington County....	50.25	46.07	44.95	48.35	46.55	46.77	43.39	41.01	41.14	39.67	30.87
Whole State.....	35.31	35.37	32.61	34.08	33.59	34.19	33.97	31.86	30.28	31.66	30.73

By reference to Table LIV, it will be seen that the average age of all decedents during the last four years is nearly five years greater than the first period of five years, 1863-1867.

PERCENTAGE OF DECEDENTS BY DIFFERENT AGES.

In Table VI, on pages 12 to 17, inclusive, will be found the number of deaths in 1898, in each town and each county, of each sex, and in each period of life, with the percentage of the whole number of deaths in each division to the population of the same by geometrical estimation from the census of 1895.

The following Table shows the percentage of decedents in each division of ages, to whole number of deaths, in each of the last six years, and in the aggregate for three periods; one of twenty years and seven months, from June 1st, 1852, to December 31, 1872, inclusive; one of ten years, from 1873 to 1882, inclusive; and one of ten years, from 1883 to 1892, inclusive :

* Exclusive of Providence city.

TABLE LV.

PERIODS OF LIFE.	1898.	1897.	1896.	1895.	1894.	1893.	10 years, 1888 to 1892.	10 years, 1873 to 1882.	20 years, 7 months, 1852 to 1872.
Under 1 year.....	22.9	22.5	24.4	21.7	23.1	23.2	20.4	18.9	17.8
1 and under 2.....	4.7	4.9	4.7	5.3	4.8	5.2	5.6	7.6	8.8
2 and under 5.....	4.1	4.5	5.9	6.2	5.1	5.3	5.8	8.4	8.7
Total.....	31.7	31.9	35.0	33.2	33.0	33.7	31.8	34.9	35.3
5 and under 10.....	2.4	2.5	3.1	3.6	2.7	3.9	3.5	5.0	4.8
10 and under 20.....	3.8	4.4	4.4	4.2	5.1	4.5	5.1	5.8	6.0
20 and under 30.....	8.0	8.0	8.0	8.6	8.6	7.9	8.7	9.2	9.6
30 and under 40.....	8.1	7.7	8.0	7.5	7.4	8.0	7.9	7.8	8.4
40 and under 50.....	8.1	7.6	7.6	8.0	8.5	8.4	7.5	6.9	7.3
50 and under 60.....	10.1	8.5	8.9	8.6	8.9	8.9	8.5	7.2	7.0
60 and under 70.....	11.1	11.5	10.0	10.3	10.2	10.0	9.7	8.2	7.6
70 and under 80.....	10.1	10.9	9.0	9.8	9.3	8.9	9.9	8.8	7.2
80 and under 90.....	5.6	6.0	5.0	5.3	5.0	4.8	5.9	5.1	5.1
Over 90 and not stated.....	1.0	1.0	1.0	.9	1.3	1.0	1.5	1.1	1.1
Total.....	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Compared with the average of thirty years, ending with 1882, the average proportion of the mortality of children under one year of age, during the last six years, was 4.8 per cent., or about 48 in every one thousand deaths more than the average in the longer period.

The proportions in the other periods were not greatly different from previous years, although there was some increase of percentage in the age periods above fifty years.

The following Table will present the varying proportions of deaths to whole number of deaths, in four different periods of life, from 50 years of age to 90 years, grouped in four periods of averages of ten years each, 1853-1892; in 1893, 1894, 1895, 1896, 1897, and 1898:

TABLE LVI.

AGE OF DECEDENTS.	1st Decade, 1853-1862.	2d Decade, 1863-1872.	3d Decade, 1873-1882.	4th Decade, 1883-1892.	1893.	1894.	1895.	1896.	1897.	1898.
	<i>Pr. ct.</i>	<i>Pr. ct.</i>	<i>Pr. ct.</i>	<i>Pr. ct.</i>	<i>Pr. ct.</i>	<i>Pr. ct.</i>	<i>Pr. ct.</i>	<i>Pr. ct.</i>	<i>Pr. ct.</i>	<i>Pr. ct.</i>
50 to 60.....	6.7	7.3	7.2	8.5	8.9	8.9	8.6	8.9	8.5	10.1
60 to 70.....	6.9	8.3	8.2	9.7	10.0	10.2	10.3	10.0	11.5	11.1
70 to 80.....	7.3	8.4	8.8	9.9	8.9	9.3	9.8	9.0	10.9	10.1
80 to 90.....	4.6	5.4	5.1	5.9	4.8	5.0	5.3	5.0	6.0	5.6

COLORED DECEDENTS.

There were 196 deaths of persons of color during 1898.

The towns from which they were returned, and number in each, were as follows :

Providence City.....	117
Bristol.....	2
Warwick.....	3
Jamestown.....	1
Newport City.....	39
Cranston.....	16
East Providence.....	2
Johnston.....	1
Pawtucket.....	3
Hopkinton.....	2
Narragansett.....	2
South Kingstown.....	5
Richmond.....	1
Westerly.....	2
Total.....	196

Season.—The deaths in the different months were as follows :

Months.	Deaths.	Months.	Deaths.	Months.	Deaths.	Months.	Deaths.
January.....	12	April.....	13	July.....	17	October.....	16
February.....	13	May.....	16	August.....	30	November.....	8
March.....	18	June.....	19	September.....	18	December.....	16
	—		—		—		—
First Quarter.....	43	Second Quarter.....	48	Third Quarter.....	65	Fourth Quarter.....	40

First six months, 91; second six months, 105. Total, 196.

The following summary will show the proportion, to the whole colored population, of each of the events of birth, marriage, and death of colored persons, during the twenty-one years from 1878 to 1898, inclusive :

	One Birth in every	One Person married in every	One Death in every
1878.....	36.4.....	39.2.....	40.2
1879.....	39.6.....	51.4.....	37.3
1880.....	47.1.....	43.3.....	44.0
1881.....	34.3.....	39.2.....	35.4
1882.....	36.8.....	44.5.....	45.4
1883.....	33.4.....	63.3.....	39.7
1884.....	34.8.....	46.0.....	34.5
1885.....	36.7.....	51.7.....	40.1
1886.....	34.6.....	43.2.....	37.8
1887.....	35.8.....	38.9.....	37.2
1888.....	37.6.....	55.0.....	38.0
1889.....	38.7.....	52.0.....	40.0
1890.....	45.3.....	57.6.....	41.0
1891.....	42.8.....	41.2.....	36.4
1892.....	40.6.....	38.5.....	31.3
1893.....	38.6.....	44.2.....	31.3
1894.....	34.3.....	56.6.....	34.2
1895.....	35.9.....	42.6.....	32.1
1896.....	35.1.....	38.9.....	37.9
1897.....	38.5.....	36.0.....	41.3
1898.....	37.9.....	48.2.....	41.8

In every one thousand of the colored population there were, in 1898 :

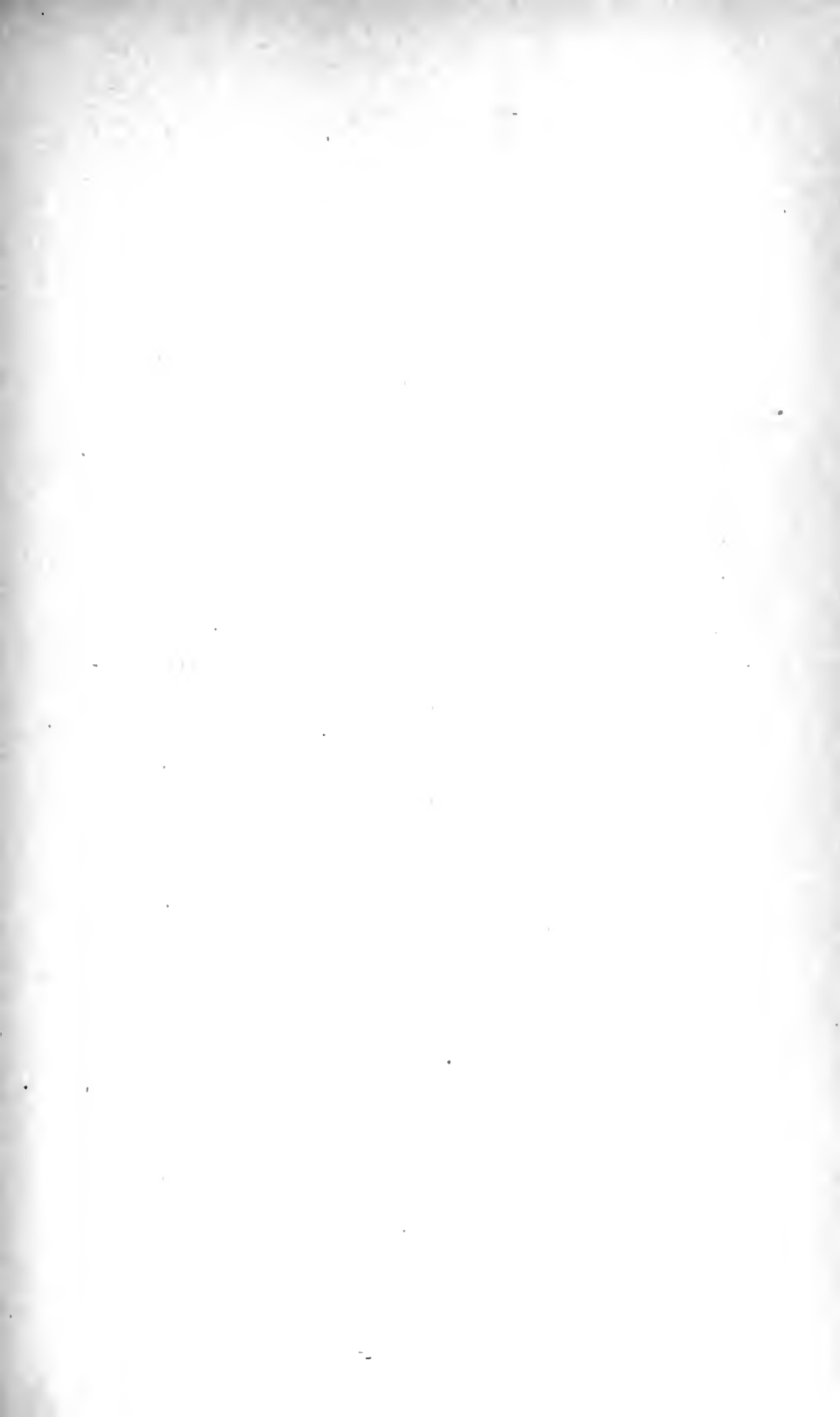
Of Births.	Of Persons Married.	Of Deaths.
26.4.....	20.8.....	23.9

The following exhibit will show the number of living births, marriages, and deaths among the colored population of Rhode

Island, during ten years, from 1861 to 1870, inclusive; 10 years, from 1871 to 1880, inclusive; 10 years, from 1881 to 1890, inclusive; and for 1891, 1892, 1893, 1894, 1895, 1896, 1897, and 1898, and the aggregate of the same:

10 years, 1861-1870.....	1,131 births.....	557 marriages.....	1,153 deaths.
10 years, 1871-1880.....	1,615 births.....	705 marriages.....	1,573 deaths.
10 years, 1881-1890.....	1,951 births.....	752 marriages.....	1,890 deaths.
1891.....	173 births.....	95 marriages.....	201 deaths.
1892.....	182 births.....	98 marriages.....	236 deaths.
1893.....	203 births.....	90 marriages.....	250 deaths.
1894.....	221 births.....	67 marriages.....	222 deaths.
1895.....	221 births.....	93 marriages.....	247 deaths.
1896.....	226 births.....	102 marriages.....	209 deaths.
1897.....	206 births.....	110 marriages.....	192 deaths.
1898.....	216 births.....	85 marriages.....	196 deaths.
<hr/>			
Total, 38 years.....	6,348 births.....	2,754 marriages.....	6,342 deaths.

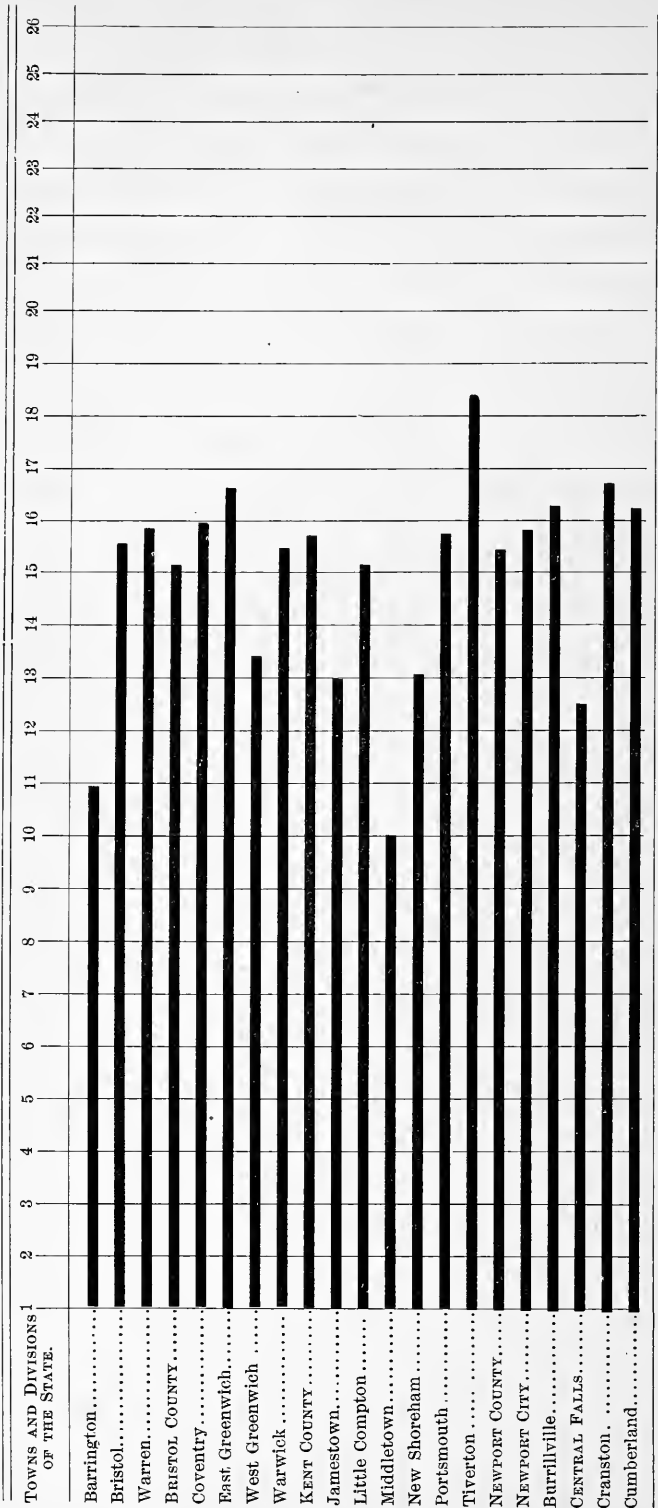
During the first ten years (1861-1870) there were 22 more deaths than births; during the second ten (1871-1880), 42 more births than deaths; during the last ten years (1881-1890), 94 more births than deaths. During 1891 the number of births was 31 less than the number of deaths. During 1892 the number of births was 54 less than the number of deaths. In 1893 the number of births was 47 less than the number of deaths. In 1894 the number of births was 1 less than the number of deaths. In 1895 the number of births was 26 less than the number of deaths. In 1896 the number of births was 17 more than the number of deaths. In 1897 the number of births was 14 more than the number of deaths, and in 1898 the number of births was 20 more than the number of deaths.

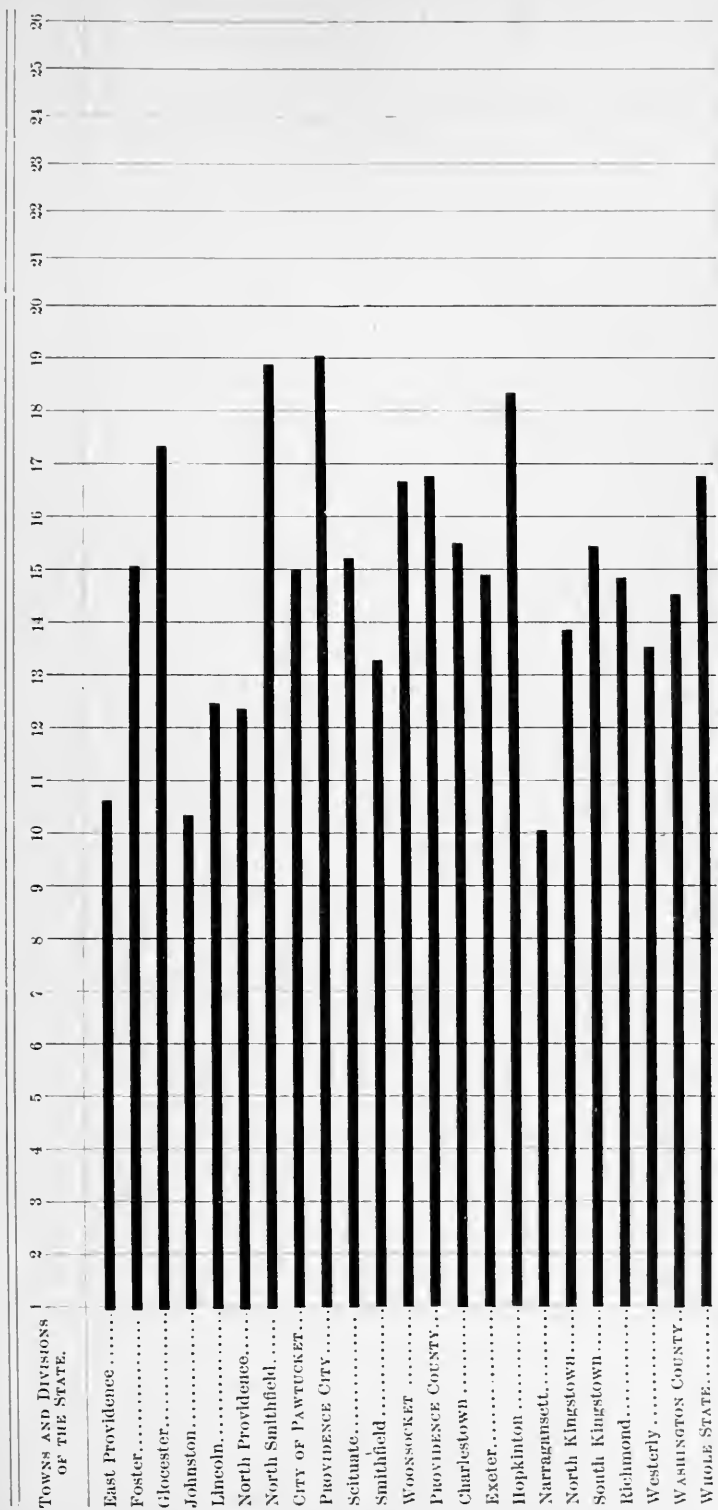


DEATH RATES.

Diagram II.—Showing the Number of Deaths in every 1,000 of the Population, in each Town and each County in the State, during the Year 1898, computed upon an estimated Increase of the Population by the Census of 1895.

For explanation see foot-note on next page.





The figures at the top of the perpendicular lines indicate, in whole numbers, the number of deaths during the year in every 1,000 persons. The spaces are fractional parts of one. For instance, the heavy horizontal line against Barrington, at the top of this diagram, reaches across eight-tenths of the space between the perpendicular lines 19 and 20. It shows the death rate of Barrington, in 1898, was ten and eight-tenths in every 1,000 of the population.

CAUSES OF DEATH, 1898.

The statistics of the causes of death in Rhode Island, in 1898, may be found in Tables VII, VIII, IX, and X. The whole number of deaths, as previously stated, was 6,905, which was 205 less than the number returned in 1897, and 599 less than the number reported in 1896. The number of which the cause of death was reported was 6,885, and the number of which the cause was not stated was 20.

The following Table shows the number of deaths, in 1898, in each large division of the State, and the number and proportion in each division from which causes were reported unknown :

TABLE LVII.

	Bristol County.	Kent County.	Newport County Towns.	Providence County Towns.	Washington County.	Central Falls.	Newport City.	Pawtucket.	Providence City.	Woonsocket.	Whole State.
Number of deaths	212	516	145	1,166	369	218	349	543	2,929	458	6,905
Cause not stated.....	.....	3	2	3	2	.....	1	1	8	.....	20
One in.....	.....	172	72	388	181	.....	349	543	366	.....	345

TABLE LVIII.

Proportion of Deaths reported with "Causes Unknown" in each Division of the State, for a period of forty-three years, from 1856 to 1898, inclusive.

YEARS.	STATE DIVISIONS.							In every 1,000 Deaths.
	Bristol County.	Kent County.	Newport County.	Providence County.*	Providence City.	Washington County.	Whole State.	
1856-1860, One in every	18.1	5.0	7.2	5.5	30.7	7.3	9.4	106.8
1861-1865, One in every	32.1	13.1	16.1	7.9	39.3	23.7	15.1	66.0
1866-1870, One in every	33.9	8.9	26.7	7.1	61.8	16.4	14.1	70.9
1871-1875, One in every	38.6	8.6	13.1	9.9	83.4	13.6	17.1	58.4
1876, One in every	11.5	7.9	18.5	9.9	124.3	22.8	19.3	45.8
1877, One in every	201.0	17.7	9.7	11.9	323.0	16.0	23.2	43.1
1878, One in every	32.1	7.4	9.0	13.7	124.2	21.7	21.1	47.4
1879, One in every	16.6	9.2	12.4	9.5	225.1	8.6	17.6	56.8
1880, One in every	21.9	23.5	13.5	10.5	122.3	17.8	20.7	48.3
1876-1880, One in every	31.9	17.2	19.9	18.1	39.6	26.9	25.2	39.7
1881, One in every	204.0	13.0	11.2	7.3	143.0	6.5	14.4	69.4
1882, One in every	37.6	11.6	10.9	10.6	187.0	7.7	18.8	53.2
1883, One in every	40.4	15.9	15.0	15.3	392.8	17.0	28.4	36.2
1884, One in every	100.0	40.0	81.6	91.7	372.1	90.4	122.4	8.2
1885, One in every	185.0	355.0	137.0	45.6	309.1	52.2	91.3	10.9
1881-1885, One in every	75.4	20.1	18.8	15.7	242.2	14.0	28.6	34.9
1886, One in every	110.5	192.5	86.0	87.0	195.1	55.2	113.7	7.3
1887, One in every	212.0	343.0	73.5	782.6	264.0	351.0	333.7	3.0
1888, One in every	251.0	408.0	152.7	164.3	298.8	368.0	235.7	4.3
1889, One in every	208.0	152.0	221.0	176.7	120.0	338.0	160.0	6.2
1890, One in every .....	.....	.....	236.0	109.0	190.0	159.0	161.0	6.2
1886-1890, One in every	576.0	413.0	125.1	154.8	189.0	171.2	177.6	5.6
1891, One in every .....	.....	.....	598.0	159.0	175.0	154.0	194.0	5.1
1892, One in every .....	.....	.....	591.0	240.0	212.0	184.0	264.0	3.8
1893, One in every	228.0	96.3	64.2	70.2	224.0	307.0	109.9	9.1
1894, One in every .....	.....	102.3	173.0	91.6	144.9	402.0	130.2	7.7
1895, One in every .....	.....	522.0	122.7	280.6	90.9	123.7	141.9	6.9
1891-1895, One in every	1,155.0	277.5	159.6	126.5	151.8	195.2	152.5	6.6
1896, One in every .....	.....	116.6	.....	707.5	155.6	382.0	258.8	3.9
1897, One in every	231.0	536.0	127.7	139.5	187.4	.....	284.4	3.5
1898, One in every .....	.....	172.0	164.6	596.2	366.1	184.5	345.2	2.9

* Not including Providence city.

TABLE LIX.

Exhibiting the Order in regard to Number and Proportion of Decedents from Thirteen Principal Causes of Death.

	1898.	1897.	1896.	1895.	1894.	Jan. 1st, 1888, to Jan. 1st, 1897—10 years.	June 1st, 1852, to Dec. 31st, 1887—35 years, 7 mos.	No. of Deaths Per 1,000 of Whole Pop.
Whole Number.	6,965	7,110	7,504	7,535	7,460	70,552	130,231	
Consumption . . .	886	777	846	839	705	7,767	19,847	151.3
Heart Diseases . . .	549	635	669	685	665	6,213	8,298	61.5
Pneumonia	542	570	556	535	496	5,493	6,821	53.1
Kidney Diseases . . .	471	469	545	500	476	4,959	6,797	53.0
Cholera Inf.	468	425	419	417	407	3,885	5,642	43.6
Apoplexy	416	387	395	341	313	2,893	5,166	40.1
Brain Diseases . . .	327	328	296	293	254	2,663	4,674	39.2
Accidents	296	293	296	293	231	2,548	4,974	38.5
Cancer	279	254	283	274	221	2,449	4,632	36.1
Bronchitis	226	231	276	258	214	2,088	3,921	30.3
Enteritis	233	231	249	234	187	2,038	3,777	29.2
Old Age	205	226	226	197	166	1,421	2,859	22.1
Diphtheria	43	159	206	125	159	1,345	2,461	19.1

* 30 years, 1858 to 1887, inclusive.

The number of deaths from consumption, in 1898, was 109 more than in 1897, an increase of over 14 per cent.

From pneumonia there was a decrease of 93 deaths from that of the previous year, or over $14\frac{1}{2}$ per cent. The fatality from pneumonia has, however, been slowly increasing, in proportion to whole number of deaths, for the last twenty years.

From diseases of the heart there was a decrease of 28 deaths from 1897. For more than 16 years, previous to 1898, diseases of the heart have been steadily increasing as causes of death, the mortality in 1897 being the largest ever recorded in this State.

There were 93 deaths from diphtheria, in 1898, a decrease of 138 from the number in 1897.

From kidney diseases there was an increase of 84, or nearly 22 per cent. over the number in 1897.

COMPARATIVE STATISTICS AND COMMENTS.

There have been presented in the preceding pages, numerically and in tabular form, the different causes of death in Rhode Island, in 1898, with various summaries and illustrations. In Tables VII and VIII they were presented at considerable length, in various specific terms; in Table IX more or less grouped in a general nosological arrangement; and in Table X the same for a period of forty-six years.

In Table VII the number of deaths from *each cause* and of *each sex* is shown, for *each month* in the year, and the *nativity* and *parentage* of the decedents from *each cause* during the year.

In Table VIII the number of decedents of *each sex*, from *each cause*, in the *different periods of life*, is given.

In Table IX, with the classification and percentage of causes of death, the number of each general cause, in each division of larger population, is given.

In Table X a nosological summary of causes of death for the whole State, in each of forty-six years, is given.

Table LX is a compend, in part, of Tables VII, VIII, and IX, previously alluded to, and contains the particulars of the most important causes of death in 1898, and comprises the principal causes which will be commented upon in the following pages:

TABLE LX.
Deaths in Rhode Island from Twenty-six Principal Diseases.

	Accidents and Negligence.	Apoplexy and Paralysis.	Appendicitis.	Brain Diseases.	Bronchitis.	Cancer.	Cholera Infantum.	Consumption.	Croup.	Diarrhoea.	Diphtheria.	Dysentery.	Enteritis.	Fever, Typhoid.	Heart Disease.	Influenza.	Kidney Disease.	Liver Diseases.	Measles.	Old Age.	Pleurisy.	Pneumonia.	Rheumatism.	Scarlet Fever.	Stomach Diseases.	Whooping Cough.
Total Mortality.....	296	416	45	327	236	279	468	886	9	60	53	38	233	76	549	75	471	91	18	205	19	542	18	21	47	96
{ Males	233	263	29	176	109	83	240	460	4	31	51	22	115	49	295	29	228	41	11	86	12	299	11	10	48	37
{ Females.....	63	243	16	151	127	196	228	426	5	29	42	16	118	27	254	46	243	50	7	119	7	243	7	11	49	59
{ Native	111	245	15	131	76	159	163	272	3	19	34	14	104	23	282	40	207	31	3	135	9	218	1	14	41	50
{ Foreign.....	185	171	30	196	160	120	305	614	6	41	59	24	129	53	267	35	264	60	15	70	10	324	17	7	56	46
{ January.....	19	37	2	33	22	22	5	68	3	3	12	...	7	7	49	7	37	4	1	13	2	63	2	1	11	...
{ February.....	14	40	3	28	24	26	1	71	...	1	12	2	7	7	37	2	46	6	5	15	1	49	2	3	7	5
{ March.....	19	30	7	27	44	23	4	87	1	4	6	1	6	6	50	15	35	6	...	17	3	83	1	1	9	6
{ April.....	17	32	...	33	25	21	6	78	2	4	12	1	5	6	48	13	50	9	3	21	5	63	3	3	11	9
{ May.....	15	44	9	38	15	23	10	87	...	4	7	1	11	4	47	9	34	14	3	14	1	50	...	1	4	1
{ June.....	24	32	3	22	15	20	16	65	1	1	5	1	18	2	46	5	44	10	1	13	...	33	1	3	4	7
{ July.....	30	29	2	27	14	27	88	67	...	8	1	4	35	6	44	2	36	6	2	21	1	12	2	2	6	19
{ August.....	41	30	5	31	11	20	187	74	...	11	1	9	53	6	41	...	30	7	2	16	...	14	2	1	9	17
{ September.....	30	42	8	25	11	27	116	70	1	14	5	13	35	4	50	1	40	5	...	22	3	20	2	...	12	12
{ October.....	28	27	1	22	20	20	30	60	...	7	13	5	30	17	44	...	40	8	...	19	...	29	...	3	11	9
{ November.....	27	42	1	21	11	22	3	86	1	2	11	1	10	6	47	1	37	7	1	15	2	4	2	3	5	3
{ December.....	32	31	4	20	24	28	2	73	...	1	8	...	16	5	46	20	42	9	...	19	1	83	1	...	8	2

SEASON. PARENTAGE. SEX.

DEATHS FROM ACCIDENTS. 1898.

The number of deaths from accidental causes of all kinds, reported in Rhode Island, in 1898, was 296.

Among the 296 deaths from accidents there were 19 from asphyxia; 4 from bicycle accidents (collision of bicycles, 1; collision of bicycle with team, 1; fall from bicycle, 2); 21 from burns and scalds; 60 from drowning; 7 by electric car (5 were struck by car while walking on or crossing track; 1 by falling or stepping from car while in motion; 1, a child, deaf and dumb, was run over by car while rolling a hoop); by elevator, 4 (fall into well, 3; 1 crushed between floor of car and door); 7 by exposure to cold and storm; 58 from falls; 9 from firearms; 23 from insolation; 1 by lightning; 5 by machinery; 3 from overdose of medicine; 8 from poison; 30 by railroad; and 37 by various other accidents.

Among the groups of causes there were in detail causes as follows:

Asphyria.—By bed clothing, 6 (infants); by overlaying, 4; in sewer trench, by caving in of sand, 1; by illuminating gas, 3 (adults); by smoke in burning building, 3; by piece of meat, 1 (adult); while in drunken stupor, owing to position of head, 1. Total, 19, or 6.4 per cent. of the whole number of accidents.

Burns and Scalds.—In burning building, 3 (ages, 21, 65, 67 years); by explosion of kerosene lamp, 3 (ages, 18, 22, 49 years); by upset kerosene lamp, 1 (child pulled lamp from table); by explosion of oil-stove, 1 (adult); playing with matches, 3; by clothes taking fire from bonfire, 1 (age, 5 years); by falling into pail or tub of hot water, 2 (children under 5 years); by hot fat, 1 (age, 1 year); by upset teapot or gravy dish, 3 (infants); manner unspecified, 3. Total, 21, or 7.1 per cent. of whole number of accidents.

Drowning.—Bathing, 12; from wrecked schooner or sloop, 3; by capsizing of boats, 9; by falling overboard from small boats, 6; while crossing ice, 1; from a scow, while riding a bicycle on same, 1; in uncovered cistern, 1 (age, 3 years); by falling into while playing on edge of water, 7 (ages, 4, 5, 5, 6, 7, 7, 9 years; 1 in bath-tub (climbed into tub while mother was hanging out clothes, age, 1 year); found in water, manner unknown, 19. Total, 60, or 20.1 per cent. of whole number of accidents.

Falls.—From building or staging, 4; into coal-hole, 1; down stairs or steps, 17 (ages, 1, 15-20; 1, 20-30; 3, 40-50; 4, 60-70; 4, 70-80; 4, 80-90); from ladder, 2; from, or over, a ledge, 1; from load of hay, 1; from tree, 1; from window, 4 (ages, 1, 1, 2, 97 years); on ice, 3 (ages, 8, 42, 65 years); from truck in mill, 1 (age, 13 years); from high bed, 2 (infants); from cradle, 1; on floor, ground, or sidewalk, 7; from veranda, 1 (age, 84 years); from chair, 1 (age, 90 years); on picket fence, 1 (age, 8 years); in bleachery, 1 (machinist); unspecified, 9. Total, 58, or 19.6 per cent. of whole number of accidents.

Firearms.—Seven out of the nine accidents by firearms occurred while out hunting; 2, by the careless handling of loaded revolvers in the hands of others.

Overdose of Medicine.—One by chloral, and 2 by morphine (self-administered).

Poison.—Ammonia, taken by mistake for Jamaica ginger or other medicine, 2; corrosive sublimate, given by mistake to child, 1; corrosive sublimate or acetic acid taken by mistake in one case, and muriatic acid in another; 1 by strychnia (tablets found and eaten by child); turpentine or a polishing liquid drunk while under influence of liquor, 1; by lead (a painter), 1.

Railroad.—Fourteen were walking on or crossing track, 1 was trying to climb on moving train, 1 at grade crossing (crawled under gate), 1 struck by engine while trying to stop runaway horse. Of the employes that were killed, 5 were on track and were struck by engine, 3 were thrown or fell from moving train, 1 was caught between car and bumping-post, 1 caught between moving car and station platform, 1 was struck by overhead bridge, 1 while coupling cars, and 1 in a collision.

Accidents, Various.—Thrown from carriage or wagon, 10; 1 each: by explosion of dynamite (while heating it in water over a forge), thrown from saddle by fall of horse, over-exertion from bicycle riding (peritonitis), kicked by a horse, crushed by grindstone, by falling tree, by violent exercise (peritonitis), stepped on broken bottle (tetanus), foot-ball accident—rupture of bladder, hit by derrick-boom, crushed between car and post at coal wharf, slight injury to thumb (septicæmia), wound of lung while trying to stop runaway horse, hanged himself by clothesline to door (in play, age, 16 years), chestnut in bronchial tube (age, 2 years), blow on stomach while diving (peritonitis), stepped on rusty nail (septi-

cæmia), crushed skull by falling boiler at brewery, cut in knee-joint with axe, fracture of skull—struck on head in drunken row, shocked by live wire (a lineman), injury to foot—cause unknown, by swallowing copper coin—causing gastro-enteritis, injury to toenail (gangrene), wound of hand with nail (septicæmia); unspecified, 2. Total, 37.

Of the whole number of deaths by accidents, 233 were males and 63 were females; 111 were of native and 185 of foreign parentage, or 37.50 per cent. of native to 62.50 of foreign.

Of the sexes, the proportion was 78.72 per cent. of male decedents to 21.28 per cent. of female decedents.

In regard to periods of life, the decedents from accidental causes were divided as follows: under 5 years, 43; 5, and under 10, 19; between 10 and 20, 29; between 20 and 40, 67; between 40 and 60, 76; over 60, 62.

In regard to sectional divisions of the State, 11 of the deaths from accidental causes were in Bristol county; 18 in Kent county; 26 in Newport county; 219 in Providence county; and 22 in Washington county.

The whole number of deaths from accidental causes, in 1898, *in proportion to the whole number of deaths* in the State, was about 43 in every one thousand. The number in proportion to the whole *population* was .71 in every one thousand.

The number of deaths in each division of the year was as follows:

First Quarter.....	52	Third Quarter.....	101
Second Quarter.....	56	Fourth Quarter.....	87
First half.....	108	Second half.....	188
Whole year.....	296		

In the following Table may be found the number, sex, parentage, and locality of mortality from accidents, for thirty-three years, ending December 31, 1898:

TABLE LXI.

Mortality in the State from Accidents, with the Percentage of the Whole Number of Deaths; Sex, Parentage, and Locality, for thirty-three years, from 1866 to 1898, inclusive, in three periods of five years each, and for each of the last eighteen years.

YEARS.	Whole Number.	VARIETIES.								Per cent.	SEX.		PARENT-AGE.		STATE DIVISIONS.					
		Burns and Scalds.	Drowning.	Falls.	Fractures and Contusions.	Poisoning.	Railroad.	Suffocation.	Various and Unspecified.		Males.	Females.	Native.	Foreign.	Bristol County.	Kent County.	Newport County.	Providence County.*	Providence City.	Washington County.
5 yrs. 1866-1870.....	400	77	124	89	...	14	43	...	143	2.18	375	115	238	252	32	34	46	187	162	39
5 yrs. 1871-1875.....	610	78	164	90	...	21	71	...	186	2.97	493	117	283	327	26	46	50	200	240	48
5 yrs. 1876-1880.....	607	75	166	69	...	28	58	14	197	2.72	450	157	249	358	17	53	47	178	281	31
1881.....	155	16	29	19	...	9	20	19	43	3.09	107	48	62	93	5	17	12	60	56	5
1882.....	178	17	40	31	...	6	16	8	60	3.50	130	48	72	106	5	9	15	60	80	9
1883.....	153	18	27	21	...	6	16	12	53	2.83	117	36	61	92	4	8	9	63	66	3
1884.....	197	20	41	31	...	7	16	11	71	3.82	147	50	90	107	5	19	14	65	76	18
1885.....	173	19	42	25	...	9	15	9	54	3.30	135	38	72	101	5	6	8	58	83	13
1881-1885...	856	90	179	127	...	37	83	59	281	3.26	636	220	357	499	24	59	58	306	361	48
1886.....	190	23	58	19	...	6	20	9	55	3.25	141	49	84	106	16	11	16	62	72	13
1887.....	206	17	39	17	23	7	24	14	65	3.24	158	48	92	114	5	11	23	81	71	15
1888.....	190	27	46	18	8	12	25	8	46	2.87	145	45	63	127	4	6	14	70	88	8
1889.....	216	20	52	31	25	7	23	9	49	4.10	146	70	88	128	2	14	13	73	101	13
1890.....	250	20	71	32	26	11	31	12	47	3.60	199	51	99	151	7	17	24	75	111	16
1886-1890...	1052	107	266	117	82	43	123	52	262	3.29	789	263	426	626	34	59	90	361	443	65
1891.....	223	18	52	21	29	16	30	17	50	2.54	174	50	78	155	5	18	16	95	89	10
1892.....	309	21	48	33	60	20	29	8	90	4.18	225	84	115	194	8	12	21	100	158	9
1893.....	264	26	47	25	25	14	39	14	74	3.55	195	69	88	176	9	21	21	75	126	12
1894.....	234	28	52	29	20	8	26	21	40	3.27	189	45	74	160	6	24	18	88	81	17
1895.....	298	28	61	57	2	8	26	26	55	3.89	233	60	88	205	6	23	13	85	141	25
1891-1895...	1333	121	260	165	136	66	170	86	329	3.69	1016	317	443	890	34	99	89	413	595	73
1896.....	296	25	39	48	...	8	36	21	116	3.94	226	70	104	195	6	25	24	85	139	17
1897.....	263	41	40	64	...	7	24	22	65	2.70	197	66	94	169	12	15	22	87	115	12
1898.....	296	24	60	58	...	8	30	19	100	1.29	233	63	111	185	14	18	26	85	134	22
Total, 33 yrs	5803	635	1298	827	248	232	638	276	1679	3.33	4415	1388	2302	3501	186	408	452	1932	2470	355

* Exclusive of Providence city.

TABLE LXII.

Mortality in the State from Alcoholism, with the Percentage of the Whole Number of Deaths, Sex, Parentage, and Locality, for thirty-three years, from 1866 to 1898, inclusive.

YEARS.	Number of Deaths from Alcoholism.	Per cent.	SEX.		PARENTAGE.		DIVISIONS OF THE STATE.					
			Males.	Females.	Native.	Foreign.	Bristol County.	Kent County.	Newport County.	Providence County.*	Providence City.	Washington County.
5 years, 1866-1870	62	.40	53	9	32	30	5	6	6	18	25	2
5 years, 1871-1875	93	.45	73	20	37	56	2	6	9	25	48	3
5 years, 1876-1880	79	.35	52	27	25	54	2	4	6	18	45	4
1881.....	24	.51	17	7	5	19	1	.....	1	7	14	1
1882.....	28	.58	16	12	8	20	.....	.....	.....	9	18	1
1883.....	29	.54	17	12	7	22	.....	1	1	10	16	1
1884.....	27	.53	19	8	10	17	.....	1	4	9	12	1
1885.....	22	.41	16	6	6	16	2	1	.....	11	7	1
1881-1885.....	130	.50	85	45	36	94	3	3	6	46	67	5
1886.....	12	.20	9	3	2	10	1	.....	1	3	7	.....
1887.....	16	.25	14	2	4	12	2	2	2	5	4	1
1888.....	16	.32	10	6	5	11	.....	.....	2	5	9	.....
1889.....	31	.50	23	8	12	19	2	1	1	13	14	.....
1890.....	25	.37	20	5	8	17	2	.....	.....	11	11	1
1886-1890.....	100	.31	76	24	31	69	7	3	6	37	45	2
1891.....	29	.47	22	7	8	21	1	1	4	10	13	.....
1892.....	36	.48	27	9	8	28	1	.....	4	12	17	2
1893.....	44	.59	34	10	15	29	.....	3	7	9	23	2
1894.....	39	.54	33	6	12	27	1	4	2	14	16	2
1895.....	24	.32	19	5	5	19	.....	.....	.....	10	13	1
1891-1895.....	172	.48	135	37	48	124	3	8	17	55	82	7
1896.....	34	.45	28	6	7	27	1	2	6	10	14	1
1897.....	36	.51	26	10	10	26	.....	1	5	11	15	4
1898.....	45	.65	37	8	13	32	.....	3	3	13	22	4
Total, 33 years..	751	.43	565	186	239	512	23	36	64	233	363	32

* Exclusive of Providence city.

APOPLEXY AND PARALYSIS.

There were 416 deaths from apoplexy and paralysis in Rhode Island, in 1898, according to the returns. The number reported is 53 less than in the year 1897.

The whole number of deaths from these two causes represents 6.02 per cent. of *all causes*, and a proportion of 1 to every one thousand of the population.

Of the sexes, there were 203 males and 213 females.

Of parentage, 245 were of native parentage, and 171 of foreign.

As observed in previous reports, the older native population has steadily been, in a very large proportion, more prone to apoplexy than the foreign, or the children of the foreign population.

It will be observed that the proportion of deaths from apoplexy and paralysis, to the whole mortality from all causes, has steadily increased from about three and three-quarters per cent., during the first quinquennial (1866-1870), to nearly five and three-quarters per cent., during the quinquennial (1891-1895).

The following Table will present the sex, parental, and local relations of apoplexy and paralysis, as causes of death, during the last thirty-three years: (Providence city not included in the Providence county statement.)

TABLE LXIII.

Mortality in the State from Apoplexy and Paralysis, 1866 to 1898, inclusive.

YEARS.	Total Deaths for Year.	Number from Apoplexy and Paralysis.	Per cent.	SEX.		PARENTAGE.		DIVISIONS OF THE STATE.					
				Males.	Females.	Native.	Foreign.	Bristol County.	Kent County.	Newport County.	Providence County.*	Providence City.	Washington County.
1866-1870..	15,391	574	3.73	284	290	464	110	52	43	77	145	224	33
1871.....	3,344	156	4.66	73	83	113	43	10	17	15	40	61	13
1872.....	4,247	125	2.97	62	63	96	29	17	9	10	27	52	10
1873.....	4,403	134	3.04	59	75	109	25	9	8	17	26	57	17
1874.....	4,229	156	3.69	84	72	120	36	14	10	16	42	59	15
1875.....	4,317	166	3.61	79	87	133	33	7	13	17	46	75	8
1871-1875..	20,540	737	3.59	357	380	571	166	57	57	75	181	304	63
1876.....	4,116	165	4.01	79	86	130	35	13	11	13	45	68	15
1877.....	4,450	181	4.07	87	94	123	58	10	10	16	52	74	19
1878.....	4,441	188	4.23	104	84	145	43	12	16	21	58	66	15
1879.....	4,472	220	4.92	114	106	146	74	12	9	29	71	89	10
1880.....	4,829	215	4.67	109	106	157	58	18	13	22	71	78	13
1876-1880..	22,308	969	4.77	493	476	701	268	65	59	101	297	375	72
1881.....	5,016	244	4.86	116	128	170	74	17	15	25	70	101	16
1882.....	5,074	265	5.22	139	126	168	97	15	29	24	65	117	15
1883.....	5,282	275	5.22	138	137	192	83	11	28	22	75	118	21
1884.....	5,141	298	5.80	135	163	176	122	21	14	28	108	105	22
1885.....	5,389	289	5.38	144	145	183	106	16	18	28	99	110	18
1881-1885..	25,902	1,371	5.29	672	699	889	482	80	104	127	417	651	92
1886.....	5,849	333	5.70	173	160	230	103	11	27	32	108	120	35
1887.....	6,340	328	5.17	161	167	213	115	21	27	23	101	128	28
1888.....	6,594	367	5.41	164	203	234	133	29	26	29	113	137	33
1889.....	6,259	323	5.17	140	183	204	119	23	32	28	101	106	33
1890.....	6,934	341	4.91	168	173	206	135	21	21	23	110	144	22
1886-1890..	31,976	1,692	5.29	806	886	1,087	605	105	133	135	533	635	151
1891.....	6,620	335	5.08	160	175	207	128	17	29	32	118	118	21
1892.....	7,396	362	4.29	176	186	195	167	12	29	39	124	134	24
1893.....	7,440	407	5.47	206	201	227	180	21	28	26	138	171	23
1894.....	7,160	445	6.22	231	214	243	202	19	33	40	155	165	33
1895.....	7,535	417	5.53	199	218	238	179	18	29	30	150	153	37
1891-1895..	36,151	1,966	5.71	972	994	1,110	856	87	148	167	685	741	138
1896.....	7,504	419	5.58	199	220	235	184	20	30	42	146	141	40
1897.....	7,110	469	6.70	229	240	263	206	13	33	40	175	184	24
1898.....	6,905	416	6.02	203	213	245	171	17	30	48	136	152	33

* Not including Providence city.

TABLE LXIV.

Ages of Decedents from Apoplexy and Paralysis, in each of the last thirty-three years.

APOPLEXY AND PARALYSIS.	PERIODS OF LIFE.								Not stated.
	Under 20.	20 to 30.	30 to 40.	40 to 50.	50 to 60.	60 to 70.	70 to 80.	80 and over.	
1866.....	1	1	7	16	9	21	27	7	.....
1867.....	2	.....	6	6	15	38	40	17	.....
1868.....	2	3	3	11	16	27	31	16	2
1869.....	1	1	5	12	20	28	34	15	1
1870.....	4	1	10	9	12	33	41	20	.....
1871.....	3	4	7	14	21	46	45	15	1
1872.....	1	4	5	17	20	26	41	11	.....
1873.....	2	3	4	14	22	35	37	16	1
1874.....	1	2	9	9	30	39	40	25	1
1875.....	6	2	8	19	23	40	45	22	1
1876.....	4	1	4	13	25	43	49	23	.....
1877.....	1	2	9	12	21	50	61	22	.....
1878.....	4	2	7	14	41	40	53	26	1
1879.....	4	6	11	18	27	57	59	38	.....
1880.....	1	2	8	18	21	59	70	34	2
1881.....	1	7	11	20	36	55	70	42	2
1882.....	4	5	14	28	41	57	77	38	1
1883.....	8	4	11	19	45	56	83	49	.....
1884.....	10	7	16	21	32	68	95	45	4
1885.....	8	5	7	25	29	76	94	44	1
1886.....	7	8	10	25	52	65	112	51	3
1887.....	12	6	13	26	50	90	96	35	.....
1888.....	10	4	18	29	61	85	100	60	.....
1889.....	6	6	11	36	45	87	92	39	1
1890.....	7	5	13	29	52	81	100	50	1
1891.....	4	6	15	24	61	88	90	47	.....
1892.....	3	6	17	40	60	91	95	49	1
1893.....	13	6	19	45	62	110	108	43	1
1894.....	12	5	16	39	88	108	111	65	1
1895.....	6	2	24	39	76	101	106	63	.....
1896.....	1	7	17	31	76	118	110	55	1
1897.....	3	3	12	37	77	136	141	57	.....
1898.....	3	8	12	37	75	108	117	54	2
Total.....	155	137	359	755	1,344	2,168	2,473	1,193	29

APPENDICITIS.

From a greater perfection in diagnosis of disease of the abdominal viscera, the disease known as appendicitis has received greater attention. This was probably reported in previous years under the head of diseases of the bowels, intussusception, or peritonitis.

During 1898 there were 45 cases of appendicitis reported, and of this number operations were performed in 24 cases.

As there were 11 deaths from peritonitis, in 1898, this would represent over 80 per cent. of the combined numbers.

Of the 45 cases of appendicitis, 29 were males, and 16 were females. Fifteen were of native, and 30 of foreign parentage.

BRAIN DISEASES.

The number of decedents from diseases of the brain proper, in 1898, was 327.

This number represents 4.73 per cent. of *all causes*, and a proportion of .79 to every one thousand of the whole *population*.

Of the 327 decedents, 176 were males, and 151 were females.

In regard to parentage, 131 were of native, and 196 of foreign parentage.

The deaths in the different seasons of the year were as follows :

First Quarter.....	88	Third Quarter.....	83
Second Quarter.....	93	Fourth Quarter.....	63
First half.....	181	Second half.....	146
Whole year.....		327	

Brain diseases occur largely in children. Of the 327 decedents from those causes, in 1898, 133 were under 5 years of age, and 19 were from 5 to 10 years of age.

The following Table will present the statistics of mortality from diseases of the brain, for thirty-three years :

TABLE LXV.

Mortality in the State from Brain Diseases, with the Percentage, Sex, Parvantage, and Locality, for thirty-three years, from 1866 to 1898, inclusive.

YEARS.	Number of Deaths from Brain Diseases.		SEX.		PARENTAGE.		DIVISIONS OF THE STATE.					
		Per cent.	Males.	Females.	Native.	Foreign.	Bristol County.	Kent County.	Newport County.	Providence County.*	Providence City.	Washington County.
1866-1870.....	465	3.02	249	216	274	191	21	24	34	139	222	25
1871-1875.....	607	2.95	331	276	358	249	12	32	39	167	337	20
1876.....	150	3.64	92	58	89	61	3	11	7	39	85	5
1877.....	160	3.59	88	72	91	69	3	7	11	49	85	5
1878.....	142	3.19	75	67	76	66	1	13	12	45	68	3
1879.....	163	3.65	82	81	88	75	3	13	15	51	75	6
1880.....	161	3.39	87	77	89	75	3	6	12	56	81	6
1876-1880.....	779	3.49	424	355	433	346	13	50	57	240	394	25
1881.....	186	3.69	103	83	85	101	7	11	14	58	91	5
1882.....	181	3.50	93	88	92	89	4	10	10	71	80	6
1883.....	187	3.54	96	91	100	87	8	14	15	52	94	4
1884.....	148	2.88	90	58	77	71	4	9	8	41	83	3
1885.....	189	2.51	98	91	94	95	2	11	20	53	100	3
1881-1885.....	891	3.44	480	411	448	443	25	55	67	275	448	24
1886.....	182	3.09	108	74	84	98	4	14	13	69	78	4
1887.....	203	3.21	120	83	103	100	8	9	14	75	95	2
1888.....	212	3.21	114	98	109	103	4	19	12	76	90	14
1889.....	189	3.58	91	98	96	93	5	12	17	72	78	5
1890.....	217	3.13	113	104	119	98	7	13	17	90	85	5
1886-1890.....	1,003	3.14	546	457	511	492	28	67	73	382	426	27
1891.....	222	3.36	135	87	108	114	8	19	19	93	78	5
1892.....	246	3.33	130	116	122	124	8	22	27	96	83	10
1893.....	257	3.46	139	118	116	141	12	17	23	100	98	7
1894.....	221	3.09	122	99	93	128	4	24	13	82	84	14
1895.....	258	3.42	123	135	126	132	14	25	22	81	105	11
1891-1895.....	1,204	3.33	649	555	565	639	46	107	104	452	448	47
1896.....	299	3.98	152	147	136	163	10	24	38	139	79	9
1897.....	328	4.61	179	149	151	177	7	26	30	178	78	9
1898.....	327	4.73	176	151	131	196	5	26	26	157	100	13
Total, 33 years..	5,003	3.41	3,186	2,717	3,007	2,896	167	411	468	2,129	2,532	196

* Exclusive of Providence city.

BRONCHITIS.

The number of decedents in 1898, whose deaths were reported as having been caused by bronchitis, was 236. This is 10 more than in 1897.

This number represents 3.42 per cent. of *all causes*, and a proportion of .57 to every one thousand of the *population*.

Of the 236 decedents, 109 were males, and 127 were females; or at the rate of 85 males to each 100 females.

In relation to parentage, 76 were of native, and 160 of foreign parentage.

In regard to age, 129 of the decedents were under 5 years of age, 10 were between 5 and 20 years, 7 between 20 and 40 years, 21 between 40 and 60 years, and of the remaining 69 decedents above 60 years of age, there were 31 deaths from chronic bronchitis.

During the first four months of the year the decedents from bronchitis numbered 115, during the last four months the number was 66.

The very large increase in the proportionate mortality from bronchitis, during the last twenty years, will scarcely fail to be noticed in Table LXVI.

The following Table will show various facts in relation to the mortality from bronchitis, for thirty-three years:

TABLE LXVI.

Mortality in the State from Bronchitis, thirty-three years, 1866 to 1898, inclusive.

YEARS.	Number of Deaths.		SEX.		PARENTAGE.		DIVISIONS OF THE STATE.					
	Number of Deaths.	Per cent.	Males.	Females.	Native.	Foreign.	Bristol County.	Kent County.	Newport County.	Providence County.*	Providence City.	Washington County.
1866-1870	99	.64	43	56	47	52	1	4	7	29	56	2
1871	24	.58	10	14	11	13	.....	1	1	5	17	.....
1872	25	.65	10	15	11	14	1	1	1	6	16	.....
1873	27	.64	12	15	11	16	.....	.....	1	7	18	1
1874	39	.96	22	17	12	27	.....	.....	.....	6	32	1
1875	57	1.39	32	25	29	28	.....	.....	1	21	33	2
1871-1875	172	.81	86	86	74	98	1	2	4	45	116	4
1876	57	1.46	23	34	26	31	.....	2	.....	7	46	2
1877	69	1.62	32	37	35	34	1	1	1	22	44	.....
1878	80	1.89	30	50	37	43	1	2	6	22	48	1
1879	62	1.47	31	31	31	31	1	1	5	21	31	.....
1880	91	1.86	49	42	44	47	1	6	6	21	56	1
1876-1880	359	1.61	165	194	173	186	4	12	18	93	228	4
1881	84	.67	48	36	39	45	1	1	2	25	53	2
1882	100	1.27	39	61	47	53	3	2	6	25	60	4
1883	111	2.10	56	55	51	60	5	2	3	42	57	2
1884	118	2.29	58	60	40	78	6	.....	8	42	62	.....
1885	168	3.08	82	86	91	77	5	3	13	71	76	.....
1881-1885	581	2.24	283	298	268	313	20	8	32	205	308	8
1886	174	2.96	75	99	81	93	3	4	9	74	83	1
1887	176	2.77	90	86	60	116	3	6	19	63	84	1
1888	228	3.45	105	123	79	149	3	4	17	110	88	6
1889	260	4.20	128	132	90	170	4	8	18	109	110	11
1890	275	4.01	140	135	116	159	5	4	15	107	138	6
1886-1890	1,113	3.48	538	575	426	687	18	26	78	463	503	25
1891	247	3.74	108	139	95	152	13	15	21	85	111	2
1892	308	4.16	147	161	117	191	5	15	21	130	130	7
1893	315	4.24	164	151	105	210	4	9	21	150	126	5
1894	251	3.55	112	142	82	172	4	15	11	98	120	6
1895	271	3.64	133	141	92	182	8	15	19	103	122	7
1891-1895	1,398	3.87	664	734	491	907	31	69	93	566	609	27
1896	276	3.68	143	133	101	175	8	19	9	112	116	12
1897	226	3.18	123	103	83	143	6	19	13	88	91	6
1898	236	3.42	109	127	76	160	6	14	11	87	103	15

* Exclusive of Providence city.

CANCER.

There were 279 decedents, in 1898, whose deaths were caused by cancer, according to the returns. The term cancer includes all the various kinds, and in whatever place located.

This number represents 4.04 per cent. of *all causes*, and a proportion of .62 to every one thousand of the *population*.

The varieties of cancer, as reported, may be found in Tables VII and VIII, on pages 22, 23, 37, and 38. They are classed in Table IX as follows: cancer in various localities, or cancer various, 46; cancer of abdomen, 8; of the breast, 32; of face, 8; of the liver, 36; of rectum, 14; of the stomach, 64; of the uterus, 71.

In 1898 the deaths from cancer, in the several divisions of the year, were as follows:

First Quarter.....	71	Third Quarter... ..	74
Second Quarter.....	64	Fourth Quarter.....	70
	—		—
First half.....	135	Second half.....	144
		Whole year.....	279

Sex.—Of the 279 decedents from cancer, 83 were males, and 196 were females; or 30 males and 70 females in every 100.

Parentage.—There were 159 of native parentage, and 120 of foreign.

The following Table will show the facts of mortality from cancer, in relation to sex, parentage, and locality, for thirty-three years:

TABLE LXVII.

Mortality in the State from Cancer, 1866 to 1898, inclusive.

YEARS.	Deaths.		SEX.		PARENTAGE.		DIVISIONS OF THE STATE.					
	Number of	Per cent.	Males.	Females.	Native.	Foreign.	Bristol County.	Kent County.	Newport County.	Providence County.*	Providence City.	Washington County.
5 years, 1866-1870	328	2.13	98	230	269	59	19	33	38	87	131	20
1871.....	66	2.13	25	41	47	19	.....	7	5	25	25	1
1872.....	95	2.46	26	69	66	29	4	7	9	21	50	4
1873.....	106	2.53	45	61	76	30	4	6	12	32	44	8
1874.....	87	2.13	23	64	67	20	4	6	12	24	38	3
1875.....	95	2.31	24	71	62	33	3	6	7	25	49	5
1871-1875.....	149	2.18	143	306	318	131	15	32	45	127	206	21
1876.....	106	2.72	27	79	72	34	5	6	8	27	53	7
1877.....	135	3.17	29	106	87	48	3	7	9	37	66	13
1878.....	119	2.82	38	81	79	40	5	11	8	37	48	10
1879.....	125	2.96	39	86	70	55	9	6	9	28	66	7
1880.....	125	2.72	45	80	73	52	5	10	12	26	68	4
1876-1880.....	610	2.73	178	432	381	229	27	40	46	155	301	41
1881.....	145	2.90	40	105	90	55	8	10	12	42	65	8
1882.....	132	2.75	40	92	82	50	5	15	9	43	52	8
1883.....	169	3.20	51	118	105	64	3	17	12	49	86	2
1884.....	156	3.05	39	117	88	68	2	18	21	41	70	4
1885.....	193	3.59	52	141	114	79	8	9	8	67	88	13
1881-1885.....	795	3.07	222	573	479	316	26	69	62	242	361	35
1886.....	162	2.77	42	120	75	87	6	11	9	37	87	12
1887.....	159	2.50	49	110	96	63	8	5	10	49	80	7
1888.....	193	2.93	67	126	128	65	9	10	12	57	88	17
1889.....	189	3.03	65	124	104	85	4	10	13	57	82	23
1890.....	165	2.41	56	109	92	73	14	10	13	46	71	8
1886-1890.....	868	2.71	279	589	495	373	41	46	57	246	411	67
1891.....	177	2.67	48	129	104	73	8	11	15	46	83	14
1892.....	181	2.45	53	128	103	78	7	16	16	57	75	10
1893.....	205	2.75	54	151	124	81	6	15	17	56	92	19
1894.....	214	2.99	67	147	121	93	13	11	23	75	73	19
1895.....	234	3.11	74	160	106	128	13	12	17	79	96	17
1891-1895.....	1,011	2.79	296	715	558	453	47	65	88	313	419	79
1896.....	226	3.01	61	165	117	109	6	21	12	81	89	17
1897.....	254	3.57	77	177	128	126	12	14	22	86	103	17
1898.....	270	4.04	83	196	159	120	18	18	24	75	119	25

* Exclusive of Providence city.

CHILD-BIRTH.

Under the head of "Child-birth" are included, in this connection, puerperal convulsions, and whatever causes of death that may have occurred as the direct result of child-birth, or parturition.

The number reported in 1898 was 71, 25 of which were from the immediate effects of child-birth, including metritis, hemorrhage, rupture of uterus, etc.; 10 from peritonitis; 14 from puerperal nephritis and convulsions; 22 from puerperal fever or septicæmia.

Of the whole number, 22 were of native, and 49 of foreign parentage.

This number represents 1.03 per cent. of *all causes*, and a proportion of .17 to every one thousand of the *population*.

There were 14 more deaths from "child-birth" in 1898 than in 1897.

The following Table will present the various relations in regard to the mortality from child-birth, for thirty-three years, 1866-1898:

TABLE LXVIII.

Mortality in the State from Child-Birth, with the Percentage of the Whole Number of Deaths, Parentage, and Locality, for thirty-three years, from 1866 to 1898, inclusive.

YEARS.	Number of Deaths from Child-Birth.	Per cent.	PARENTAGE.		DIVISIONS OF THE STATE.					
			Native.	Foreign.	Bristol County.	Kent County.	Newport County.	Providence County.*	Providence City.	Washington County.
1866-1870.....	155	1.01	62	93	7	6	16	59	56	11
1871-1875.....	245	1.19	111	134	7	21	12	76	110	19
1876.....	48	1.24	21	27	3	.....	1	18	23	3
1877.....	46	1.09	18	28	4	3	5	17	17	.....
1878.....	43	1.01	23	20	2	4	3	9	21	4
1879.....	43	1.02	21	22	1	7	2	6	23	4
1880.....	51	1.11	23	28	4	4	3	10	27	3
1876-1880.....	231	1.04	106	125	14	18	14	60	111	14
1881.....	60	1.28	26	34	1	1	3	22	29	4
1882.....	50	1.03	18	32	.....	5	1	16	27	1
1883.....	58	1.10	26	32	1	5	9	14	27	2
1884.....	47	.91	17	30	.....	3	3	19	18	4
1885.....	47	.87	21	26	.....	3	4	15	24	1
1881-1885.....	262	1.04	108	154	2	17	20	86	125	12
1886.....	41	.70	17	24	.....	4	4	15	17	1
1887.....	53	.71	15	38	.....	5	4	18	26	.....
1888.....	51	.77	13	38	.....	3	.....	25	20	3
1889.....	41	.65	14	27	1	5	2	16	13	4
1890.....	41	.58	12	29	3	4	4	10	17	3
1886-1890.....	274	.86	92	182	4	24	18	99	117	12
1891.....	32	.35	8	24	.....	3	.....	8	19	2
1892.....	75	1.01	29	46	1	9	3	24	29	9
1893.....	57	.76	23	34	.....	5	4	15	29	4
1894.....	72	1.01	15	57	.....	8	3	25	32	4
1895.....	55	.73	16	39	.....	3	.....	18	30	1
1891-1895.....	291	.77	91	200	1	28	10	90	139	23
1896.....	50	.67	16	34	.....	2	1	24	17	6
1897.....	57	.80	18	39	2	8	.....	21	22	1
1898.....	71	1.03	22	49	1	6	1	28	32	3
Total, 33 years.....	1,636	.94	626	1,010	38	130	92	543	729	104

* Exclusive of Providence city.

CHOLERA INFANTUM.

The number of deaths from cholera infantum, according to the returns for 1898, was 468.

This number represents 6.78 per cent. of deaths from *all causes*, and a proportion of 1.13 to every one thousand of the *population*.

Of the 468 decedents, 240 were males, and 228 were females.

Of parentage, 163 were of native, and 305 of foreign parentage; or about 187 of foreign to every 100 of native parentage.

The mortality from cholera infantum, during 1898, was .80 per cent. greater than during the year 1897.

As may be seen on the following page, the number of decedents from cholera infantum, during the thirty-three years from 1866 to 1898, inclusive, was 11,065.

The proportion to total mortality, for the period of thirty-three years, was 6.3 per cent. For 1892 the proportion was 8.6 per cent.; for 1893, 8.1 per cent.; for 1894, 6.9 per cent.; for 1895, 6.6 per cent.; for 1896, 7.3 per cent.; for 1897, 5.9 per cent.; and for 1898, 6.7 per cent.

There were 105 males to every 100 females among the decedents during the thirty-three years; and 187 decedents of foreign parentage to every 100 of native, during the same period.

The following Table shows the whole number of reported deaths from cholera infantum; the sex and parentage of the decedents; and the number in each of the larger divisions of the State, in each of the last thirty-three years:

TABLE LXIX.

Mortality in the State from Cholera Infantum, 1866 to 1898, inclusive.

YEARS.	Number of Deaths.	Per cent.	SEX.		PARENTAGE.		DIVISIONS OF THE STATE.					
			Males.	Females.	Native.	Foreign.	Bristol County.	Kent County.	Newport County.	Providence County.*	Providence City.	Washington County.
5 years, 1866-1870	745	4.81	403	342	352	393	39	44	46	245	324	47
1871.....	172	4.82	85	87	82	90	14	12	12	59	62	13
1872.....	391	8.71	195	196	167	224	16	16	21	157	151	30
1873.....	285	6.19	148	137	165	120	17	14	16	120	99	19
1874.....	265	5.86	140	125	115	150	4	12	5	84	134	26
1875.....	318	6.97	156	162	155	163	20	16	20	108	136	18
1871-1875.....	1,431	6.97	724	707	684	747	71	70	74	528	582	106
1876.....	250	5.75	131	119	105	145	5	12	29	68	124	12
1877.....	259	5.52	139	120	96	163	12	13	9	96	122	7
1878.....	168	3.58	96	72	73	95	7	14	7	64	71	5
1879.....	161	3.43	88	73	71	90	8	16	21	51	59	6
1880.....	247	5.12	123	124	109	138	13	11	10	93	100	20
1876-1880.....	1,085	4.86	577	508	454	631	45	66	76	372	476	50
1881.....	240	4.54	130	110	102	138	10	22	14	75	102	17
1882.....	325	6.10	173	152	133	192	20	11	19	132	130	13
1883.....	242	4.37	124	118	104	138	12	7	22	88	108	5
1884.....	325	6.00	177	148	139	186	10	12	26	114	144	19
1885.....	279	4.92	150	129	128	151	5	23	16	133	86	16
1881-1885.....	1,411	5.45	754	657	606	805	57	75	97	542	570	70
1886.....	377	6.14	179	198	143	234	4	29	15	194	120	15
1887.....	355	5.36	200	155	145	210	16	16	35	160	119	9
1888.....	467	6.78	239	228	184	283	18	35	28	219	149	18
1889.....	396	6.01	209	187	132	264	18	32	20	199	116	11
1890.....	582	8.01	282	300	202	380	19	57	33	245	209	19
1886-1890.....	2,177	6.81	1,109	1,068	806	1,371	75	169	131	1,017	713	72
1891.....	546	8.25	298	248	170	376	21	68	50	255	137	15
1892.....	633	8.56	336	297	210	423	18	77	43	281	201	13
1893.....	603	8.10	324	279	186	417	11	82	44	267	183	16
1894.....	496	6.93	243	253	162	334	13	76	25	225	130	27
1895.....	500	6.64	268	232	155	345	14	57	19	241	150	19
1891-1895.....	2,778	7.55	1,469	1,309	883	1,895	77	360	181	1,269	801	90
1896.....	545	7.26	313	232	165	380	5	62	38	277	148	15
1897.....	425	5.98	201	211	160	265	12	63	30	179	120	21
1898.....	468	6.78	240	228	163	305	14	62	28	211	144	9
Total, 33 years..	11,065	6.37	5,793	5,272	4,273	6,792	395	971	701	4,640	3,878	480

* Not including Providence city.

CONSUMPTION.

The decedents from consumption, during 1898, numbered 886. The number is 109 more than in the preceding year.

This number represents 12.83 per cent. of *all causes*, and a proportion of 2.14 to every one thousand of the *population*.

Sex.—Of these 886 decedents, 460 were males, and 426 were females; being about 93 female decedents to every 100 male decedents.

For the period of twenty years (1866–1885) there were nearly 124 females to every 100 male decedents from consumption, and a very considerable excess every year since, excepting in 1890, 1891, 1893, 1897, and 1898.

Parentage.—There were 272 decedents of native parentage, and 614 of foreign; a proportion of 226 of foreign parentage to every 100 of native.

Season.—The largest number of deaths, 87, occurred each in March and May; the next largest, 86, in November; the smallest, 60, in October.

The number in each quarter of the year was as follows :

First Quarter.....	226	Third Quarter.....	211
Second Quarter.....	230	Fourth Quarter.....	219
First half.....	456	Second half.....	430
Whole year.....	886		

Ages.—During 1898, of the 886 decedents from consumption, 254 were between the ages of 20 and 30; and 179, or over one quarter, were between the ages of 30 and 40.

In order to show more concisely the relation of age to mortality from consumption, during 1898, the following age periods and numbers are presented :

Under 10 years of age.....	110
Between 10 and 20 years.....	80
Between 20 and 30 years.....	254
Between 30 and 40 years.....	179
Between 40 and 50 years.....	115
Between 50 and 70 years.....	122
Over 70 years.....	26
Total.....	886

The following Table shows the total deaths from all reported *known causes*, with the *number* and *percentage* of deaths from consumption of the same, in each of the large divisions of the State, and in the whole State, *in each of the last seventeen years*, and also the aggregate for a period of thirty years, from 1861 to 1890, inclusive :

CONSUMPTION.

STATISTICS BY COUNTIES.

NUMBER AND PERCENTAGE,

THIRTY-EIGHT YEARS.

TABLE LXX.—CONSUMPTION.—Number, Locality, and Percentage.

COUNTIES.	1882.	1883.	1884.	1885.	1886.	1887.	1888.	1889.	1890.	1891.	1892.	1893.	1894.	1895.	1896.	1897.	1898.	Total 30 years, 1861-1890.
BRISTOL COUNTY.																		
Total deaths, stated causes .	183	197	199	185	221	217	251	208	253	239	232	227	200	256	220	230	212	5,217
Consumption	36	19	21	12	23	20	28	20	31	17	29	18	10	29	27	13	29	646
Percentage	19.68	9.64	10.50	6.48	10.35	9.22	11.15	9.62	11.85	7.11	12.50	7.93	5.00	11.33	12.27	5.65	13.68	12.38
KENT COUNTY.																		
Total deaths, stated causes .	288	283	268	355	385	343	408	454	470	500	598	572	574	521	578	535	513	8,151
Consumption	51	39	37	45	43	34	55	45	38	47	51	55	46	54	59	55	54	1,300
Percentage	17.71	13.78	13.43	12.70	11.20	9.91	13.44	9.84	8.08	9.40	8.53	9.62	8.01	10.36	10.21	10.28	10.53	15.95
NEWPORT COUNTY.																		
Total deaths, stated causes .	378	401	403	408	433	435	458	440	470	597	590	506	516	487	532	507	491	10,043
Consumption	46	55	43	47	57	41	32	37	51	51	45	35	46	59	66	55	60	1,300
Percentage	12.17	13.72	10.67	11.52	13.16	9.19	7.00	8.41	10.85	8.51	7.63	6.92	8.91	12.11	12.41	10.85	12.32	12.94
PROVIDENCE COUNTY.*																		
Total deaths, stated causes .	1,509	1,656	1,723	1,918	2,087	2,345	2,465	2,286	2,374	2,344	2,632	2,634	2,536	2,706	2,826	2,646	2,381	39,262
Consumption	224	257	248	273	276	246	273	257	305	236	265	259	242	271	292	283	307	6,124
Percentage	14.82	15.52	14.13	14.20	13.05	10.49	11.07	11.24	12.84	10.00	10.07	9.83	9.54	9.33	10.33	10.70	12.89	15.60

* Exclusive of Providence city.

TABLE LXX.—CONSUMPTION.—Number, Locality, and Percentage.

COUNTIES.	1882.	1883.	1884.	1885.	1886.	1887.	1888.	1889.	1890.	1891.	1892.	1893.	1894.	1895.	1896.	1897.	1898.	Total 30 years, 1867-1898.
PROVIDENCE CITY.																		
Total deaths, stated causes	2,230	2,351	2,227	2,157	2,344	2,630	2,644	2,495	2,859	2,615	2,950	3,127	2,878	3,055	2,968	2,796	2,921	51,462
Consumption	351	364	344	348	368	323	362	315	394	347	342	328	325	394	367	341	405	8,000
Percentage	15.73	15.48	15.43	16.10	15.65	12.23	13.66	12.55	13.69	13.19	11.59	10.49	11.29	12.90	12.49	12.20	13.86	15.72
WASHINGTON COUNTY.																		
Total deaths, stated causes	215	208	279	307	331	351	368	337	316	307	366	306	401	368	381	371	367	7,405
Consumption	29	32	46	56	59	46	50	53	33	42	27	27	36	32	35	30	31	1,296
Percentage	13.49	15.40	16.28	17.93	17.52	13.10	13.58	15.68	10.38	13.61	7.38	8.82	8.98	8.70	9.19	8.09	8.45	17.47
WHOLE STATE.																		
Total deaths, stated causes	4,804	5,096	5,099	5,330	5,798	6,321	6,594	6,220	6,830	6,586	7,368	7,372	7,105	7,483	7,475	7,025	6,885	121,540
Consumption	737	766	739	781	826	710	800	727	832	740	759	721	705	839	846	777	765	17,755
Percentage	15.33	15.03	14.34	14.42	14.12	11.19	12.13	11.61	12.29	11.18	10.30	9.79	9.92	11.21	11.32	10.97	12.87	15.43

TABLE LXXI.

Mortality in the State from Consumption, with the Percentage of the Whole Number of Deaths, from all causes, and the Sex, Parentage, and Locality, in the Aggregate of Different Periods, 1866-1898.

YEARS.	Total Deaths from Consumption.	Per cent.	SEX.		PARENTAGE.		DIVISIONS OF THE STATE.					
			Males.	Females.	Native.	Foreign.	Bristol County.	Kent County.	Newport County.	Providence County.*	Providence City.	Washington County.
1866-1870.....	2,718	17.66	1,244	1,474	1,567	1,151	122	231	219	691	1,051	204
1871-1875.....	2,883	14.03	1,207	1,616	1,504	1,379	94	213	163	953	1,234	226
1876-1880.....	3,271	14.66	1,435	1,836	1,473	1,798	104	194	188	1,048	1,498	239
1881-1885.....	3,729	14.40	1,692	2,037	1,427	2,302	113	208	242	1,222	1,751	193
1886.....	826	14.12	382	444	308	518	23	43	57	276	368	59
1887.....	710	11.19	312	398	266	444	20	34	41	246	323	46
1888.....	800	12.13	391	409	284	516	28	55	32	273	362	50
1889.....	727	11.61	356	371	239	488	20	45	37	267	315	53
1890.....	852	12.29	422	430	280	572	31	38	51	305	394	33
1886-1890.....	3,915	12.24	1,863	2,052	1,377	2,538	122	215	218	1,357	1,762	241
1891.....	740	11.18	380	360	248	492	17	47	51	236	347	42
1892.....	759	10.26	360	399	249	510	29	51	45	265	342	27
1893.....	722	9.72	364	358	230	492	18	55	35	259	328	27
1894.....	705	9.85	337	368	214	491	10	46	46	242	325	36
1895.....	839	11.13	392	447	284	555	29	54	59	271	304	32
1891-1895.....	3,765	10.41	1,833	1,932	1,225	2,540	103	253	236	1,273	1,736	174
1896.....	846	11.27	409	437	273	573	27	59	66	292	367	35
1897.....	777	10.93	395	382	269	508	13	55	55	283	341	30
1898.....	886	12.83	460	426	272	614	29	54	60	307	405	31
Total, 33 years..	22,790	13.11	10,598	12,192	9,387	13,403	727	1,482	1,447	7,626	10,145	1,363

* Exclusive of Providence city.

CONSUMPTION. *Proportion of Deaths to Population.*

The proportion of deaths from consumption to the *population* in the different localities in the State, during the last thirteen years, may be seen in the following summaries :

For five years, 1886 to 1890, inclusive.

	Persons, One Death to every		In every 1,000 of Population.
Bristol County.....	491.....	or.....	2.09
Kent County.....	569.....	or.....	1.85
Newport County.....	708.....	or.....	1.48
Providence County*.....	598.....	or.....	1.91
Providence City.....	356.....	or.....	2.82
Washington County.....	497.....	or.....	2.10
Whole State.....	420.....	or.....	2.40

For five years, 1891 to 1895, inclusive.

	Persons, One Death to every		In every 1,000 of Population.
Bristol County.....	671.....	or.....	1.74
Kent County.....	577.....	or.....	1.73
Newport County.....	647.....	or.....	1.58
Providence County*.....	537.....	or.....	1.91
Providence City.....	413.....	or.....	2.57
Washington County.....	766.....	or.....	1.34
Whole State.....	497.....	or.....	2.02

1896.

	Persons, One Death to every		In every 1,000 of Population.
Bristol County.....	456.....	or.....	2.19
Kent County.....	526.....	or.....	1.90
Newport County.....	474.....	or.....	2.11
Providence County Towns.....	457.....	or.....	2.19
Central Falls.....	606.....	or.....	1.65
Pawtucket.....	613.....	or.....	1.63
Providence City.....	404.....	or.....	2.47
Woonsocket.....	455.....	or.....	2.12
Washington County.....	713.....	or.....	1.40
Whole State.....	466.....	or.....	2.15

* Exclusive of Providence city.

1897.

	Persons, One Death to every		In every 1,000 of Population.
Bristol County.....	954.....	or.....	1.05
Kent County.....	583.....	or.....	1.71
Newport County.....	573.....	or.....	1.74
Providence County Towns.....	583.....	or.....	2.04
Central Falls.....	938.....	or.....	1.07
Pawtucket.....	562.....	or.....	1.78
Providence City.....	444.....	or.....	2.25
Woonsocket.....	482.....	or.....	2.08
Washington County.....	840.....	or.....	1.19
Whole State.....	519.....	or.....	1.93

1898.

	Persons, One Death to every		In every 1,000 of Population.
Bristol County.....	486.....	or.....	2.06
Kent County.....	613.....	or.....	1.63
Newport County.....	530.....	or.....	1.89
Providence County Towns.....	539.....	or.....	1.85
Central Falls.....	602.....	or.....	1.66
Pawtucket.....	508.....	or.....	1.97
Providence City.....	381.....	or.....	2.62
Woonsocket.....	400.....	or.....	2.50
Washington County.....	820.....	or.....	1.22
Whole State.....	468.....	or.....	2.14

There was an increase in the mortality from consumption, in 1898, as compared with the preceding year, not only in numbers, but also in proportion to the population.

CROUP.

There were 9 decedents from croup, in 1898, as against 17 in 1897.

Sex.—Of the 9 decedents from croup, in 1898, there were 4 males and 5 females, a proportion of 80 males to each 100 females.

Parentage.—There were 3 decedents of native parentage, and 6 of foreign parentage. The proportions were in the ratio of 200 of foreign to each 100 of native parentage.

Age.—There were 4 of the decedents under 1 year of age, 4 of 1 year and under 2, and 1 between 5 and 10.

Season.—

First Quarter.....	4	Third Quarter.....	1
Second Quarter.....	3	Fourth Quarter.....	1
	—		—
First half.....	7	Second half.....	2
Whole year.....	9		

The following Table will exhibit various facts in relation to mortality from croup for thirty-three years:

TABLE LXXII.

Mortality in the State from Croup, from 1866 to 1898, inclusive.

YEARS.	Number of Deaths.	Per cent.	SEX.		PARENTAGE.		DIVISIONS OF THE STATE.					
			Males.	Females.	Native.	Foreign.	Bristol County.	Kent County.	Newport County.	Providence County.*	Providence City.	Washington County.
1866-1870.....	227	1.47	112	115	96	131	6	13	19	82	99	8
1871-1875.....	367	1.79	198	169	164	203	13	30	13	131	169	11
1876.....	102	2.61	50	52	42	60	1	6	.....	26	65	4
1877.....	95	2.23	48	47	34	61	4	3	1	47	40	.....
1878.....	93	2.20	45	48	43	50	14	3	7	25	39	5
1879.....	96	2.28	58	38	40	56	3	6	15	25	43	4
1880.....	66	1.45	32	34	27	39	3	3	4	20	30	6
1876-1880.....	452	2.03	233	219	186	266	25	21	27	143	217	19
1881.....	101	2.16	45	56	38	63	2	6	4	38	49	2
1882.....	77	1.60	41	36	32	45	1	2	6	33	32	3
1883.....	71	1.40	32	39	33	38	1	6	4	25	35	.....
1884.....	80	1.55	40	40	32	48	2	11	4	29	34	.....
1885.....	94	1.74	45	49	42	52	4	8	6	46	28	2
1881-1885.....	423	1.63	203	220	177	246	10	33	24	171	178	7
1886.....	90	1.53	45	45	39	51	2	18	12	24	32	2
1887.....	113	1.79	58	55	43	70	9	12	4	43	39	6
1888.....	79	1.19	43	36	34	45	4	2	7	34	27	5
1889.....	80	1.28	37	43	24	56	3	15	1	27	33	1
1890.....	83	1.19	53	30	28	55	2	14	2	32	31	2
1886-1890.....	415	1.39	235	209	168	277	20	61	26	160	162	16
1891.....	67	1.46	40	27	17	50	1	11	11	27	16	1
1892.....	89	1.20	52	37	44	45	1	10	21	21	33	3
1893.....	50	.67	29	21	13	37	4	11	3	25	7	.....
1894.....	32	.45	16	16	10	22	1	7	2	15	7	.....
1895.....	30	.40	14	16	9	21	.....	6	4	11	9	.....
1891-1895.....	268	.84	151	117	93	175	7	45	41	99	72	4
1896.....	24	.32	16	8	5	19	.....	4	.....	12	8	.....
1897.....	17	.24	11	6	4	13	.....	8	.....	5	4	.....
1898.....	9	.13	4	5	3	6	.....	2	.....	4	2	1
Total, 33 years..	2,232	1.28	1,164	1,068	896	1,336	81	217	150	807	911	66

* Exclusive of Providence city.

DIARRHOEA AND DYSENTERY.

There were 98 decedents from diarrhœa and dysentery, in 1898.

This number represents 1.4 per cent. of all causes, and a proportion of .24 to every 1,000 of the population.

Sex.—Of the 98, 53 were males, and 45 were females, or a proportion of 118 males to every 100 females.

Parentage.—There were, of the 98 decedents, 33 of native parentage, and 65 of foreign parentage, or a proportion of about 197 of foreign parentage to every 100 of native.

Age.—There were 35 of the decedents from diarrhœa and dysentery under 5 years of age, and there were 51 over 50 years of age, leaving 12 for all the 45 years between 5 and 50.

Locality.—Of the 98 decedents, 72 were in Providence county, and 5 in Newport county; 2 were reported from Bristol county, 14 from Kent county, and 5 from Washington county.

Season.—Fifty-nine of the deaths from diarrhœa and dysentery occurred during the months of July, August, and September.

The decrease in mortality from diarrhœa and dysentery, in 1898, compared with the previous year, was about 8 per cent.

The following Table will show the deaths from diarrhœa and dysentery, with the percentage, sex, parentage, etc., for each of 33 years, beginning with 1866:

TABLE LXXIII.

Mortality in the State from Diarrhœa and Dysentery, 1866 to 1898, inclusive.

YEARS.	Number of Deaths.		SEX.		PARENTAGE.		DIVISIONS OF THE STATE.					
	Number of Deaths.	Per cent.	Males.	Females.	Native.	Foreign.	Bristol County.	Kent County.	Newport County.	Providence County.*	Providence City.	Washington County.
5 years, 1866-1870	677	4.40	353	324	323	354	26	46	89	215	254	47
1871-1875.....	580	2.60	317	263	305	275	27	46	23	183	289	12
1876.....	122	2.96	66	56	52	70	3	6	2	41	65	5
1877.....	142	3.19	64	78	73	69	8	6	9	54	55	10
1878.....	93	2.09	42	51	51	42	5	8	2	34	39	5
1879.....	97	2.17	48	49	47	50	9	6	10	27	42	3
1880.....	98	2.03	49	49	50	48	4	6	10	32	42	4
1876-1880.....	552	2.47	269	283	273	279	29	32	33	188	243	27
1881.....	119	2.37	56	63	54	65	2	4	3	47	57	6
1882.....	158	3.11	75	83	69	89	2	4	28	57	64	3
1883.....	182	3.45	86	96	88	94	7	7	16	74	75	3
1884.....	153	2.98	74	79	69	84	10	5	11	66	56	5
1885.....	120	2.23	61	59	51	69	7	6	6	62	35	4
1881-1885.....	732	2.89	352	380	331	401	28	26	64	306	287	21
1886.....	159	2.72	64	95	70	89	7	11	1	73	59	8
1887.....	199	3.11	107	92	70	129	6	16	4	92	72	9
1888.....	157	2.31	69	88	97	60	6	8	3	54	71	15
1889.....	159	2.54	73	86	67	92	1	12	17	71	50	8
1890.....	182	2.62	84	98	74	108	5	9	22	77	63	6
1886-1890.....	856	2.68	397	459	378	478	25	56	47	367	315	46
1891.....	143	2.16	69	74	51	92	4	15	13	48	58	5
1892.....	199	2.69	100	99	82	117	6	14	8	76	89	6
1893.....	159	2.14	79	80	56	103	5	14	7	60	66	7
1894.....	124	1.73	61	63	36	88	.....	8	4	59	43	10
1895.....	101	1.34	38	63	40	61	6	9	3	41	37	5
1891-1895.....	726	2.01	347	379	265	461	21	60	35	284	293	33
1896.....	89	1.18	49	40	40	49	2	5	8	39	28	7
1897.....	107	1.50	48	59	37	70	1	14	7	41	36	8
1898.....	98	1.42	53	45	33	65	2	14	5	32	40	5
Total, 33 years..	4,417	2.54	2,185	2,232	1,985	2,432	161	299	311	1,655	1,785	206

* Exclusive of Providence city.

DIPHTHERIA.

The number of deaths from diphtheria, in 1898, was 93, which was 138 less than in 1897, or a decrease of about 60 per cent.

This number represents 1.35 per cent. of all causes, or a proportion of .22 to every one thousand of the population.

Sex.—Of the 93 decedents, 51 were males, and 42 were females.

Parentage.—There were 34 of native, and 59 of foreign parentage, or a proportion of about 173 of foreign parentage to every 100 of native.

Season.—There were 30 deaths from diphtheria in the first quarter, 24 in the second quarter, 7 in the third quarter, and 32 in the fourth quarter.

Age.—There were 64 deaths under 5 years of age, 25 between 5 and 10, 2 between 10 and 15, 1 between 15 and 20, and 1 above 20 years of age.

Locality.—Of the 93 decedents, 72 were in Providence county, none in Bristol county, 12 in Kent county, 5 in Newport county, and 4 in Washington county.

The following Table shows the mortality in the State from diphtheria for thirty-three years, beginning with 1866, also the percentage of deaths, the sex, parentage, etc.:

TABLE LXXIV.

Mortality in the State from Diphtheria, 1866 to 1898.

YEARS.	Whole Number of Deaths, all causes.	Number of Deaths, Diphtheria.	Per cent.	SEX.		PARENTAGE.		DIVISIONS OF THE STATE.					
				Males.	Females.	Native.	Foreign.	Bristol County.	Kent County.	Newport County.	Providence County.*	Providence City.	Washington County.
1866-1870.	15,391	181	1.18	83	98	103	78	5	28	30	40	44	34
1871-1875.	20,540	242	1.18	118	124	154	88	4	35	20	54	105	24
1876.....	4,116	159	3.86	77	82	69	90	1	2	9	29	111	7
1877.....	4,450	492	11.56	239	253	233	259	12	44	2	122	295	17
1878.....	4,441	435	9.80	224	211	201	234	21	29	23	106	245	11
1879.....	4,472	259	5.79	121	138	143	116	7	19	20	95	106	12
1880.....	4,829	152	3.40	73	79	75	77	3	6	2	63	61	17
1876-1880.	22,308	1,497	6.71	734	763	721	776	44	100	56	415	818	64
1881.....	5,016	216	4.63	106	110	118	98	10	16	8	53	116	13
1882.....	5,074	101	1.99	48	53	55	46	.....	3	4	29	48	17
1883.....	5,282	95	1.88	39	56	45	50	1	7	3	26	54	4
1884.....	5,141	119	2.31	65	54	47	72	8	1	9	39	58	4
1885.....	5,389	99	1.83	47	52	48	51	5	5	6	39	37	7
1881-1885.	25,902	630	2.43	305	325	313	317	24	32	30	186	313	45
1886.....	5,849	228	3.90	98	130	101	127	20	21	23	64	98	2
1887.....	6,340	287	4.53	135	152	101	186	15	11	4	114	108	35
1888.....	6,594	191	2.86	87	104	79	112	13	3	9	58	98	10
1889.....	6,259	184	2.93	80	104	89	95	3	10	11	56	97	7
1890.....	6,934	211	3.04	112	99	93	118	1	9	16	86	94	5
1886-1890.	31,976	1,101	3.44	512	589	463	638	52	54	63	378	495	59
1891.....	6,620	102	1.50	52	50	48	54	2	7	6	40	47	.....
1892.....	7,396	89	1.20	48	41	44	45	1	1	8	23	39	17
1893.....	7,440	157	2.11	75	82	57	100	1	11	13	67	65	.....
1894.....	7,160	133	1.86	74	59	61	72	.....	3	8	72	47	3
1895.....	7,535	340	4.51	166	174	145	195	3	7	6	221	94	9
1891-1895.	36,151	821	2.24	415	406	355	466	7	29	41	423	292	29
1896.	7,504	283	3.77	149	134	120	163	5	19	6	109	140	4
1897.....	7,110	231	3.25	120	111	84	147	3	19	8	111	86	4
1898.....	6,905	93	1.35	51	42	34	59	.....	12	5	32	40	4
Total, 33 years	173,787	5,079	2.92	2,487	2,592	2,347	2,732	144	328	259	1,748	2,333	267

* Exclusive of Providence city.

FEVER, MALARIAL.

The number of deaths, during 1898, from diseases classed as fever malarial, was 31. The number in 1897 was 44; in 1896 was 42; in 1895 was 29; in 1894 was 26; in 1893 was 20; in 1892 was 36; in 1891, 31; in 1890, 42; in 1889, 40; in 1888, 71; in 1887, 85; in 1886, 44; in 1885, 30; 1884, 25.

Sex.—Of the 31 decedents from malarial fevers, in 1898, 15 were males and 16 were females, or 94 males to every 100 females.

Parentage.—There were, of the 31 decedents from malarial diseases, 10 of native parentage, and 21 of foreign.

Season.—The deaths from malarial diseases occurred in the different seasons of the year as follows:

First Quarter.....	7	Third Quarter.....	10
Second Quarter.....	5	Fourth Quarter.....	9
First half.....	12	Second half.....	19
Whole year.....	31		

Age.—The number of decedents in the different periods of life was as follows:

Under 5 years of age.....	2
From 5 to 20 years of age.....	8
From 20 to 40 years of age.....	10
From 40 to 60 years of age.....	5
60 and over.....	6
Total.....	31

Localities.—Bristol county, 1; Kent county, 0; Newport county, 2; Providence county, 26; Washington county, 2.

FEVERS, TYPHOID, ETC.

The number of decedents whose deaths were returned as having been caused by "fever" of some form, not malarial nor cerebro-spinal, was 76. Deaths from puerperal fever are not included.

The following Table exhibits, for each of the last thirty-three years, the number and the percentage, and the sex and parentage of the decedents from fevers returned as from typhoid, and the number in each division of the State:

TABLE LXXV.

Mortality in the State from Fevers, Typhoid, etc.—1866 to 1898, inclusive.

YEARS.	Number of Deaths.	Per cent.	SEX.		PARENTAGE.		DIVISIONS OF THE STATE.					
			Males.	Females.	Native.	Foreign.	Bristol County.	Kent County.	Newport County.	Providence County.*	Providence City.	Washington County.
1866-1870.....	641	4.2	314	327	398	243	35	39	77	243	184	63
1871-1875.....	740	3.5	350	390	419	321	12	43	34	263	299	89
1876.....	126	3.0	65	61	71	55	5	9	13	44	33	22
1877.....	134	3.0	63	71	65	69	8	10	8	52	44	12
1878.....	150	3.4	68	82	77	73	13	13	6	59	47	12
1879.....	114	2.7	47	67	63	51	4	13	6	44	40	7
1880.....	158	3.4	74	84	94	64	8	12	5	66	52	15
1876-1880.....	682	3.1	317	365	370	312	38	57	38	265	216	68
1881.....	143	2.8	74	69	74	69	4	13	14	58	41	13
1882.....	229	4.7	111	118	100	129	6	11	5	56	145	6
1883.....	258	4.8	146	112	117	141	9	16	10	82	134	7
1884.....	165	3.2	83	82	78	87	7	7	12	66	64	9
1885.....	158	2.9	71	87	70	88	6	14	8	69	53	8
1881-1885.....	953	3.7	485	468	439	514	32	61	49	331	437	43
1886.....	169	2.9	78	91	76	93	6	8	11	66	70	8
1887.....	127	2.0	67	60	58	69	2	14	9	49	38	15
1888.....	235	3.6	125	110	88	147	20	24	14	66	102	9
1889.....	143	2.3	85	58	56	87	2	17	9	46	60	9
1890.....	107	1.5	58	49	39	68	7	8	5	37	43	7
1886-1890.....	781	2.5	413	368	317	464	37	71	48	264	313	48
1891.....	149	2.2	86	63	56	93	5	8	17	46	63	10
1892.....	133	1.8	75	58	55	78	5	12	9	49	51	7
1893.....	115	1.6	65	50	41	74	4	7	5	40	52	7
1894.....	159	2.2	93	66	46	113	5	13	13	56	70	2
1895.....	125	1.7	73	52	55	70	3	7	11	52	48	4
1891-1895.....	681	1.9	392	289	253	428	22	47	55	243	284	30
1896.....	113	1.5	66	47	44	69	6	8	9	39	43	8
1897.....	66	0.9	43	23	33	33	4	4	4	25	23	6
1898.....	76	1.1	49	27	23	53	2	3	11	20	39	1
Total, 33 years..	4,733	2.7	2,429	2,304	2,296	2,437	188	333	325	1,693	1,838	356

* Exclusive of Providence city.

During 1898, of the 76 decedents from typhoid fever, there were 49 males and 27 females, a proportion of about 181 males to every 100 females. The difference in the sexes of the mortality from fevers is not usually very great.

During the period of thirty-three years, 1866 to 1898, inclusive, the proportions of the sexes of the decedents from "fever," in the State, were 95 females to every 100 males.

Parentage.—There were 23 decedents from enteric fever, of native parentage, in 1898, and 53 of foreign parentage, a proportion of 70 of foreign and 30 of native in every 100 decedents.

Season.—

First Quarter.....	20	Third Quarter.....	16
Second Quarter.....	12	Fourth Quarter.....	28
First half.....	32	Second half.....	44
Whole year.....	76		

The following Table shows the number of decedents from fevers, in each division of ages, in each of the last thirty-three years, in the State of Rhode Island :

TABLE LXXVI.

Mortality from Typhoid Fever in Age Periods.

YEARS.	PERIODS OF LIFE.										
	Under 10.	10 to 15.	15 to 20.	20 to 30.	30 to 40.	40 to 50.	50 to 60.	60 to 70.	70 to 80.	80 and over.	Not stated.
1866.....	23	10	21	26	21	16	9	14	10	.....	.....
1867.....	17	6	23	33	12	11	8	4	2	2	1
1868.....	10	7	10	21	8	8	10	5	5	.....	.....
1869.....	10	8	14	28	9	7	9	8	6	2	.....
1870.....	26	13	31	46	19	25	8	8	8	2	1
1871.....	13	10	20	28	18	16	9	4	5	2	.....
1872.....	17	18	34	54	20	9	12	11	3	1	.....
1873.....	27	12	34	31	25	13	13	7	8	2	.....
1874.....	10	14	26	32	9	5	10	3	6	2	.....
1875.....	23	14	19	43	18	10	10	6	4	.....	.....
1876.....	21	10	15	24	14	9	6	16	6	3	2
1877.....	22	13	18	36	20	8	5	7	2	2	1
1878.....	17	16	27	47	13	11	12	2	3	2	.....
1879.....	19	7	14	26	15	6	3	12	8	3	1
1880.....	25	12	24	43	23	12	10	5	3	.....	1
1881.....	25	9	19	29	14	11	9	12	11	4	.....
1882.....	24	22	44	69	27	14	9	10	9	1	.....
1883.....	36	25	46	75	31	12	11	10	8	2	2
1884.....	24	13	19	47	22	9	12	10	5	3	1
1885.....	25	12	16	25	26	11	11	12	6	4	.....
1886.....	29	9	25	41	20	14	17	8	5	1	.....
1887.....	24	8	16	31	16	10	5	8	4	4	1
1888.....	27	27	42	75	29	16	12	3	4	.....	.....
1889.....	18	12	29	41	18	8	9	5	3	.....	.....
1890.....	13	11	13	35	14	5	6	6	4	.....	.....
1891.....	12	10	25	50	26	10	7	6	2	.....	1
1892.....	10	11	18	42	20	15	10	6	1	.....	.....
1893.....	6	7	16	43	15	10	10	6	2	.....	.....
1894.....	18	8	31	57	21	12	6	3	2	.....	1
1895.....	10	9	10	56	15	7	9	5	4	.....	.....
1896.....	10	3	18	35	13	16	6	7	5	.....	.....
1897.....	6	4	7	22	11	9	3	3	1	.....	.....
1898.....	8	5	8	23	21	9	1	1	.....	.....	.....
Total, 33 years.....	615	375	732	1,314	603	364	287	233	155	42	13

TABLE LXXVII.

Comparative Exhibit of the Percentage of Deaths from Typhoid Fever to Total Deaths from specified causes, in Six New England States, for twenty-three years, 1876 to 1898.

STATES.	1876	1877	1878	1879	1880	1881	1882	1883	1884	1885	1886	1887	1888	1889	1890	1891	1892	1893	1894	1895	1896	1897	1898	
	Rhode Island.....	3.0	3.0	3.4	2.7	3.4	2.8	4.7	4.8	3.2	2.9	2.9	2.0	2.0	3.6	2.2	1.5	2.2	1.8	1.6	2.2	1.7	1.5	0.9	1.1
Maine.....																		2.4	2.6	2.5	1.9	1.7	1.3	
New Hampshire.....									2.2	2.2	3.0	2.1	2.1	2.1	2.4	1.9	2.4	1.3	1.4	1.7	1.4	1.9	1.3	1.2
Vermont.....	4.2	4.8	3.4	2.7	3.5	5.5	3.4	3.1	3.0	2.2	2.5	2.5	2.2	2.2	2.7	1.6	1.6	1.4	2.5	2.0	1.7			
Massachusetts.....	2.7	2.7	2.3	1.9	2.5	2.9	2.9	2.3	2.4	2.0	2.1	2.3	2.1	2.1	2.1	1.9	1.8	1.7	1.5	1.6	1.4	1.5	1.3	1.4
Connecticut.....	3.6	3.3	2.7	1.8	2.5	2.5	3.1	2.1	2.5	1.1	2.2	1.2	2.1	2.1	2.1	2.3	2.3	2.0	1.8	1.8	1.5	1.3	1.1	1.3

DISEASES OF THE HEART.

The number of decedents from the various forms of diseases of the heart, as reported in 1898, was 549. The number is 21 less than that of 1897.

This number represents 7.95 per cent. of all causes, and a proportion of 1.32 to every one thousand of the population.

Sex.—There were 295 male decedents, and 254 female decedents; a proportion of about 116 males to every 100 females, but these proportions, although varying from year to year, are not greatly different.

Parentage.—Of the 549 decedents from diseases of the heart, in 1898, there were 282 of native parentage, and 267 of foreign, a proportion of about 106 of native parentage to every 100 of foreign. Except in 1892, 1893, and 1896, it has been the invariable rule of the whole period of registration that the native population is more subject to heart disease than the foreign.

The following Table exhibits, for each of the last thirty-three years, 1866 to 1898, inclusive, the number and percentage, and the sex and parentage of the decedents from diseases of the heart, and the number of the same in each division of the State:

TABLE LXXVIII.

Mortality from Diseases of the Heart, 1866 to 1898, inclusive.

YEARS.	Number of Deaths.		SEX.		PARENTAGE.		DIVISIONS OF THE STATE.					
	Per cent.		Males.	Females.	Native.	Foreign.	Bristol County.	Kent County.	Newport County.	Providence County.*	Providence City.	Washington County.
5 years, 1866-1870	590	3.83	368	282	395	195	22	18	48	184	262	26
1871-1875.....	922	4.49	458	464	595	327	21	46	82	248	465	60
1876.....	166	4.03	86	80	109	57	9	11	10	38	86	12
1877.....	182	4.09	94	88	110	72	3	7	9	57	93	13
1878.....	166	3.73	88	78	109	57	5	11	15	38	83	14
1879.....	202	4.78	114	88	127	75	8	20	16	38	111	9
1880.....	231	5.03	125	106	146	85	9	21	29	59	104	9
1876-1880.....	947	4.25	507	440	601	346	34	70	79	230	477	57
1881.....	264	5.65	131	133	154	110	9	21	24	73	121	16
1882.....	255	5.31	116	139	162	93	8	16	23	55	142	11
1883.....	325	6.20	167	158	179	146	8	27	30	70	172	18
1884.....	285	5.60	135	150	163	122	6	16	25	87	139	12
1885.....	349	6.48	162	187	198	151	13	27	25	94	159	31
1881-1885.....	1,478	5.71	711	767	856	622	44	107	127	379	733	88
1886.....	330	5.20	152	178	184	146	12	20	18	82	168	30
1887.....	406	6.40	205	201	240	166	7	21	36	123	193	26
1888.....	436	6.56	196	240	240	196	11	22	40	122	210	31
1889.....	460	7.35	233	227	258	202	19	31	39	143	199	29
1890.....	405	5.84	222	183	219	186	15	49	27	114	172	28
1886-1890.....	2,037	6.37	1,008	1,029	1,141	896	64	143	160	584	942	144
1891.....	480	7.25	248	232	244	236	21	37	38	137	210	27
1892.....	506	6.84	260	246	252	254	22	47	48	163	200	26
1893.....	535	7.19	264	271	264	271	20	43	30	174	238	30
1894.....	476	6.65	251	225	246	230	16	32	41	161	192	34
1895.....	535	7.10	260	275	275	260	14	41	54	180	240	36
1891-1895.....	2,532	7.01	1,283	1,249	1,381	1,251	93	200	211	815	1,050	163
1896.....	556	7.41	294	262	266	290	19	40	38	189	231	39
1897.....	570	8.02	305	265	295	275	9	38	42	200	230	51
1898.....	549	7.95	295	254	282	267	17	42	44	171	237	38
Total, 33 years..	10,184	5.86	5,169	5,012	5,712	4,469	323	734	831	3,000	4,627	666

* Exclusive of Providence city.

Sex.—Of the 10,181 persons deceased from diseases of the heart, in the last thirty-three years, 5,169 were males, and 5,012 were females; or 103 males to each 100 females.

Parentage.—Of the 10,181 decedents, during thirty-three years, 5,712 were of native parentage, and 4,469 of foreign. The proportions would, therefore, stand as follows: To every 100 of foreign parentage there were about 128 of native; or about 56 native and 44 of foreign parentage in every 100 deaths. This difference has been gradually diminishing. In 1892 there were 2 more deaths of foreign than of native parentage; in 1893 there were 7 more deaths of foreign than of native parentage; in 1896 there were 24 more deaths of foreign than of native parentage; in 1897, however, there were 20 more deaths of native than of foreign parentage; and in 1898 there were 15 more deaths of native than of foreign parentage.

Diseases of the heart rank second in the order of causes in 1898.

The following Table shows the number of decedents from diseases of the heart, in each divisional period of life, in each of the last thirty-three years.

TABLE LXXIX.

Mortality from Diseases of the Heart, in Age Periods.

YEARS.	PERIODS OF LIFE.								
	Under 20.	20 to 30.	30 to 40.	40 to 50.	50 to 60.	60 to 70.	70 to 80.	80 and over.	Not stated.
1866.....	18	8	14	17	10	23	21	4	.....
1867.....	11	11	10	13	22	16	27	4	.....
1868.....	15	5	13	11	14	28	25	5	.....
1869.....	21	4	14	18	20	22	21	7	1
1870.....	19	6	11	13	20	21	23	3	1
1871.....	9	12	10	19	23	36	28	6	1
1872.....	27	12	22	19	31	36	29	13	.....
1873.....	19	11	28	18	25	35	42	9	2
1874.....	20	16	26	21	27	50	40	12	2
1875.....	14	16	25	20	32	29	41	9	.....
1876.....	14	10	15	19	20	38	39	10	1
1877.....	15	11	20	18	27	45	33	13	.....
1878.....	16	8	18	16	26	36	35	11	.....
1879.....	19	9	13	25	33	51	36	16	.....
1880.....	15	10	18	23	38	49	49	28	1
1881.....	32	13	26	33	37	49	53	21	.....
1882.....	22	17	24	25	36	51	61	17	2
1883.....	39	13	21	33	52	65	76	26	.....
1884.....	15	25	21	32	45	61	50	32	4
1885.....	38	13	24	42	61	69	78	24	.....
1886.....	39	18	28	38	52	68	69	18	.....
1887.....	52	30	23	35	61	79	87	39	.....
1888.....	39	25	30	54	84	97	74	33	.....
1889.....	45	25	37	45	69	85	118	35	1
1890.....	34	15	24	53	69	78	96	36	.....
1891.....	40	18	45	41	85	109	101	38	3
1892.....	54	21	32	59	93	111	104	31	1
1893.....	55	27	48	68	81	116	97	42	1
1894.....	40	28	36	64	69	102	102	35	.....
1895.....	33	20	14	57	82	137	111	51	.....
1896.....	40	33	46	65	98	106	117	50	1
1897.....	40	31	43	68	74	145	117	49	.....
1898.....	34	22	31	57	91	131	130	50	.....
Total, 33 years.....	943	546	810	1,139	1,607	2,177	2,130	777	22

The results of thirty-three years of registration, with record of ages of decedents from diseases of the heart, show in periods of twenty years each of life, the following percentages :

Under 20 years of age	9.3 per cent.
Between 20 and 40.....	13.6 per cent.
Between 40 and 60.....	27.0 per cent.
Between 60 and 80.....	43.3 per cent.
Over 80.....	7.6 per cent.
Not stated.....	0.2 per cent.
Total.....	100.0 per cent.

It will be seen that more than 42 per cent. of all the deaths from diseases of the heart were of persons over 60 years of age, and under 80.

Diseases of the heart have acquired large importance as a cause of death. From 38.7 in every 1,000 deaths from all causes, in 1866, heart diseases gradually increased to about 73 in every 1,000, in 1889, and falling back to slightly less than 60 per 1,000, in 1890, and rising to 72.5 per 1,000, in 1891, and falling to 68.4 in 1892. In 1893 there were 71.9 deaths from heart diseases in every 1,000, in 1894 there were 66.5 deaths in every 1,000, in 1895 there were 71.0 deaths in every 1,000, in 1896 there were 74.1 deaths in every 1,000, in 1897 there were 80.1 deaths in every 1,000, and in 1898 there were 79.5 deaths in every 1,000.

INFLUENZA.

The event, during the first four months of the year 1890, of a very extraordinary and perhaps unprecedented prevalence of a form of influenza, which was unlike that of ordinary occurrence in that it affected indiscriminately all the functions and nearly all the organs of the body, varying with the individuals attacked, and the reappearance of the same, although in greatly lessened numbers, in 1891, warrants a continued notice not given previous to 1890 in the Registration Reports to the affection so named.

The disease was, in 1890, most largely confined to the respiratory passages, and resulted in a largely increased mortality from bronchitis and consumption. During 1891 the disease was equally as severe, affecting in a larger measure the brain and other nerve centres, and the direct mortality was even larger than that of 1890. The prevalence was largest during the second quarter of the year, and again in December.

The increase in December of 1891 was followed by a sudden augmentation in the first four months of the following year, 1892, the greatest number of deaths, 198, occurring in January of 1892. The total for 1892 was 336, or about twice as much as for either of the previous years. In 1893 there were 84 deaths reported as resulting from influenza. This was 251 less than in 1892. In 1894 there were 166 deaths from influenza reported, an increase of 95 per cent. from 1893, and a decrease of over 50 per cent. from 1892. In 1895 there were 115 deaths from influenza. In 1896 there were but 42 deaths from influenza. In 1897 there were 153 deaths from influenza. In 1898 there were 75 deaths from influenza.

Sex.—Of the 75 deaths from influenza, in 1898, 29 were males and 46 were females, a proportion of 52 males to every 100 females.

Parentage.—The parent nativity of the decedents was 40 of native and 35 of foreign.

Season.—Of the 75 deaths from influenza, during 1898, 24 occurred in the first quarter of the year, 27 in the second, 3 in the third, and 21 in the fourth quarter.

Age.—There were 16 under 5 years of age, 2 from 5 to 20 years, 10 from 20 to 40, 13 from 40 to 60, 20 from 60 to 80, 14 from 80 years of age and over.

The following Tables will show the proportionate nativity, sex, and locality of the disease.

The greatest mortality appears to be among females, there being 153 females to every 100 males. The nativity appears to be nearly equally divided between native and foreign, there being 101 foreign to 100 native.

The largest number of deaths occurred in Providence city, but this is not out of proportion to the proportionate number and density of population.

Referring to the age periods, it will be seen that the greatest age is 70 to 80, there being 267, or 20.27 per cent. of the whole number of deaths from this disease. Taking the three decennials including 60 to 90 we have 644 deaths, or 48.89 per cent. of all by ages.

By season, the greatest number of deaths occurred during the winter months, the most severe being during January, February, and December. The number in January and February make a total of 674, or 51.18 per cent. of all.

Mortality in the State from Influenza, 1890 to 1898, inclusive.

YEARS.	Number of Deaths.		SEX.		PARENTAGE.		DIVISIONS OF THE STATE.					
		Per cent.	Males.	Females.	Native.	Foreign.	Bristol County.	Kent County.	Newport County.	Providence County*.	Providence City.	Washington County.
1890.....	168	2.42	72	96	68	100	6	14	12	61	70	5
1891.....	177	2.67	67	110	91	86	7	14	14	60	69	13
1892.....	366	4.54	142	194	170	166	11	27	13	115	144	26
1893.....	85	1.14	34	51	47	38	7	3	5	33	32	5
1894.....	166	2.32	62	104	88	78	6	9	15	48	75	13
1895.....	115	1.53	48	67	63	52	3	10	9	42	41	10
1896.....	42	.56	15	27	16	26	2	1	2	30	6	1
1897.....	153	2.15	52	101	72	81	3	6	3	72	64	5
1898.....	75	1.09	29	46	40	35	8	3	5	30	26	3
1890-1898.....	1,317	2.04	521	796	655	662	53	87	78	491	527	81

Influenza by Age Periods, 1890-1898.

YEARS.	Under 1.	1 to 4.	5 to 10.	10 to 20.	20 to 30.	30 to 40.	40 to 50.	50 to 60.	60 to 70.	70 to 80.	80 to 90.	90 and over.	Not stated.
	1890.....	14	18	4	8	14	22	18	17	19	17	11	5
1891.....	11	12	8	14	6	14	21	29	42	19	1
1892.....	26	20	2	6	13	19	25	33	74	74	41	3	.....
1893.....	7	5	4	3	6	1	7	4	13	16	16	2	1
1894.....	6	14	2	5	11	6	20	12	32	37	17	4	.....
1895.....	14	10	1	5	8	6	9	10	16	24	9	3	.....
1896.....	1	3	2	1	1	2	2	4	13	6	6	1	.....
1897.....	11	1	2	5	2	10	10	22	22	38	25	5	.....
1898.....	12	4	1	1	4	6	5	8	7	13	8	6	.....
1890-1898.....	102	87	18	42	73	78	110	131	225	267	152	30	2
Per cent. of all ages, 9 years.....	7.75	6.61	1.37	3.19	5.54	5.92	8.35	9.95	17.08	20.27	11.54	2.28	.15

* Exclusive of Providence city.

Influenza by Months, 1890-1898.

YEARS.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	TOTAL.
1890	108	27	11	8	4	2	2	.....	1	3	1	1	168
1891	4	3	1	22	19	19	2	2	2	4	1	98	177
1892	198	52	31	27	9	6	.....	2	3	2	1	5	336
1893	5	1	2	19	12	4	1	2	1	1	1	36	85
1894	102	27	10	9	7	3	2	1	1	.....	1	3	166
1895	12	20	43	16	7	6	5	.....	.....	.....	2	4	115
1896	9	4	5	7	5	4	1	2	2	1	.....	2	42
1897	26	67	29	11	4	3	.....	.....	2	2	3	6	153
1898	7	2	15	13	9	5	2	.....	1	.....	1	20	75
1890 1898	471	203	147	132	76	52	15	9	13	13	11	175	1,317

INSANITY.

There were 82 deaths from insanity, in 1898, a decrease of 21 from 1897. The percentage to the whole number of deaths was 1.19. These deaths occurred chiefly at the Cranston institutions, and in the Butler hospital.

Sex.—There were 41 male and 41 female decedents.

Parentage.—The number of native decedents from insanity was 37, and of foreign parentage 45.

Of the 82 deaths in 1898, there were 19 from dementia, 25 from senile dementia, 3 from acute mania, 6 from chronic mania, 7 from melancholia, and 22 from insanity.

Of the 19 deaths from dementia, the secondary cause given in 3 cases was chronic Bright's disease; 3, pulmonary tuberculosis; 5, paralysis; 2, cerebral softening; 1, cancer of abdominal viscera; 1, parotitis and meningitis; 4 cases, no secondary cause given.

Of the 25 deaths from senile dementia, the secondary cause given in 3 cases was chronic nephritis; 2, diarrhoea; 1, cystitis;

1, epilepsy ; 1, pulmonary tuberculosis ; 1, pneumonia ; 1, valvular disease of heart ; 15 cases, no secondary cause given.

Of the 22 deaths from insanity, the secondary cause given in 7 cases was paralysis ; 2, chronic nephritis ; 1, valvular disease of heart ; 1, childbirth ; 1, cystitis ; 1, pulmonary tuberculosis ; 1, epilepsy and meningitis ; in 8 cases no secondary cause was given.

Of the 3 deaths from acute mania, the secondary cause given in 1 case was Bright's disease ; 1, pulmonary tuberculosis ; 1, tubercular meningitis.

Of the 6 deaths from chronic mania, the secondary cause given in 3 cases was chronic nephritis ; 1, diarrhœa ; 1, pulmonary tuberculosis ; 1, no secondary cause given.

Of the 7 deaths from melancholia, the secondary cause given in 1 case was chronic Bright's disease ; 2, pulmonary tuberculosis ; 1, malignant tumor of brain ; 3, no secondary cause given.

Secondary causes, with insanity in some form as a primary cause, were as follows : chronic Bright's disease, 6—dementia 1, insanity 1, acute mania 2, chronic mania 1, melancholia, 1 ; cancer of abdominal viscera, 1—dementia ; cerebral hemorrhage, 2—dementia 1, insanity 1 ; cerebral softening, 3—dementia 3 ; childbirth, 1—insanity ; cystitis, 2—insanity 1, senile dementia 1 ; diarrhœa, 3—senile dementia 2, chronic mania 1 ; epilepsy, 2—insanity 1, senile dementia 1 ; paralysis, 13—insanity 10, dementia 3 ; phthisis pulmonalis, 9—dementia 3, senile dementia 1, insanity 1, acute mania 1, chronic mania 1, melancholia 2 ; valvular disease of heart, 2—senile dementia 1, insanity 1 ; tubercular meningitis, 1—acute mania ; parotitis and meningitis, 1—acute mania ; pneumonia, 1—senile dementia ; chronic nephritis, 7—dementia 1, chronic dementia 3, insanity 1, chronic mania 2 ; malignant tumor of brain, 1—melancholia.

The following Table shows the mortality in the State from insanity for thirty-three years, with percentage to deaths from all causes, sex, parentage, etc., from 1866 to 1898, inclusive :

TABLE LXXX.

Mortality in the State from Insanity.

YEARS.	Number of Deaths.	Per cent.	SEX.		PARENTAGE.		DIVISIONS OF THE STATE.					
			Males.	Females.	Native.	Foreign.	Bristol County.	Kent County.	Newport County.	Providence County.*	Providence City.	Washington County.
1866-1870.....	72	.47	33	39	52	20	.....	5	4	7	55	1
1871-1875.....	106	.52	55	51	76	30	3	2	8	33	58	2
1876.....	12	.28	5	7	9	3	1	2	1	1	6	1
1877.....	19	.49	9	10	9	10	.....	1	.....	5	12	1
1878.....	22	.50	5	17	16	6	.....	.....	1	3	17	1
1879.....	17	.40	11	6	10	7	.....	.....	.....	5	11	1
1880.....	19	.39	9	10	13	6	.....	1	2	6	9	1
1876-1880.....	89	.39	39	50	57	32	1	4	4	29	55	5
1881.....	32	.63	15	17	22	10	1	1	3	10	16	1
1882.....	23	.45	9	14	18	5	.....	1	.....	8	12	2
1883.....	29	.55	12	17	17	12	1	2	.....	7	18	1
1884.....	36	.69	17	19	24	12	2	3	.....	21	9	1
1885.....	35	.67	16	19	18	17	.....	.....	2	23	10	.....
1881-1885.....	155	.59	69	86	99	56	4	7	5	69	65	5
1886.....	49	.83	21	28	28	21	3	1	1	37	7	.....
1887.....	64	1.01	35	29	33	31	1	.....	1	56	.....	6
1888.....	43	.64	21	22	21	19	1	2	.....	33	7	.....
1889.....	22	.35	14	8	12	10	.....	.....	.....	14	8	.....
1890.....	30	.44	19	11	16	14	1	1	1	13	14	.....
1886-1890.....	298	.65	110	98	113	95	6	4	3	153	36	6
1891.....	21	.32	10	11	16	5	.....	1	.....	5	13	2
1892.....	27	.37	17	10	15	12	3	1	.....	8	14	1
1893.....	39	.53	14	25	13	26	.....	.....	.....	30	9	.....
1894.....	49	.68	20	29	22	27	1	1	.....	27	18	2
1895.....	72	.96	36	36	44	28	3	.....	1	41	27	.....
1891-1895.....	298	.57	97	111	110	98	7	3	1	111	81	5
1896.....	53	.70	28	25	22	31	.....	2	.....	40	11	.....
1897.....	103	1.45	53	50	51	52	.....	3	1	78	12	6
1898.....	82	1.19	41	41	37	45	3	.....	2	60	10	7
Total, 33 years..	1,076	.62	525	551	617	459	21	30	31	571	381	37

* Exclusive of Providence city.

DISEASES OF THE KIDNEYS.

There were 471 deaths returned, during 1898, with diseases of the kidneys assigned as the cause.

This number represents 6.82 per cent. of all causes, and a proportion of 1.13 to every 1,000 of the population.

Sex.—Of the 471, there were 228 males, and 243 females.

Parentage.—There were 207 of native parentage and 264 of foreign, or about 78 of native, to every 100 of foreign parentage.

Previous to 1890, the decedents from diseases of the kidneys, of foreign parentage, outnumbered those of native parentage.

Age.—Of the 471 decedents from kidney diseases, 14 were under 5 years of age, 22 from 5 to 20, 104 from 20 to 40, 149 from 40 to 60, 149 from 60 to 80, and 33, 80 and over.

Diseases of the kidneys have largely increased in number, and much more largely in proportion, during the last thirty-three years.

During the ten years from 1866 to 1875, inclusive, the proportion of deaths from kidney diseases, to whole number of deaths from all causes, was but little more than one per cent., while during the ten years from 1886 to 1895, inclusive, the proportion was nearly three and one-half per cent.

The following Table will present various facts in relation to the mortality from diseases of the kidneys, in Rhode Island, for thirty-three years, 1866-1898 :

TABLE LXXXI.

Mortality in the State from Kidney Diseases, 1866 to 1898, inclusive.

YEARS.	Number of Deaths.	Per cent.	SEX.		PARENTAGE.		DIVISIONS OF THE STATE.					
			Males.	Females.	Native.	Foreign.	Bristol County.	Kent County.	Newport County.	Providence County.*	Providence City.	Washington County.
5 years, 1866-1870	135	.88	94	41	91	41	6	7	25	23	66	8
1871-1875.....	295	1.44	167	128	187	108	11	11	17	67	172	17
1876.....	50	1.28	22	28	32	18	1	1	7	10	28	3
1877.....	67	1.57	40	27	35	32	2	1	.....	14	49	1
1878.....	80	1.89	50	30	49	31	4	3	3	21	47	2
1879.....	79	1.88	51	28	44	35	1	3	1	23	43	8
1880.....	91	2.02	52	39	51	40	1	5	10	27	46	2
1876-1880.....	367	1.65	215	152	211	156	9	13	21	95	213	16
1881.....	79	1.69	40	39	47	32	7	5	4	14	48	1
1882.....	86	1.79	50	36	45	41	2	5	10	15	52	2
1883.....	129	2.43	72	57	74	55	5	2	17	37	60	8
1884.....	118	2.29	53	65	66	52	5	11	12	28	54	8
1885.....	159	2.97	92	67	86	73	8	10	17	31	88	5
1881-1885.....	571	2.30	307	264	318	253	27	33	60	125	302	24
1886.....	155	2.49	85	70	93	62	3	10	22	37	71	12
1887.....	169	2.66	92	77	90	79	5	6	16	43	92	7
1888.....	213	3.23	102	111	122	91	10	10	24	46	115	8
1889.....	210	3.38	119	91	122	88	14	13	15	62	96	10
1890.....	229	3.20	116	113	109	120	15	8	21	59	116	10
1886-1890.....	976	3.05	514	462	536	440	47	47	98	247	490	47
1891.....	245	3.06	123	122	122	123	9	12	25	72	114	13
1892.....	258	3.49	135	123	127	131	9	11	24	70	128	16
1893.....	302	4.06	154	148	141	161	19	15	25	81	147	15
1894.....	313	4.37	152	161	164	149	22	20	33	84	136	18
1895.....	341	4.54	176	165	171	170	23	19	29	96	163	11
1891-1895.....	1,459	3.90	740	720	725	734	82	77	136	403	688	73
1896.....	395	5.26	209	186	188	207	19	39	34	125	160	18
1897.....	387	5.44	198	189	185	202	24	19	30	129	164	21
1898.....	471	6.82	228	243	207	264	19	23	25	153	219	32
Total, 33 years..	5,056	2.91	2,672	2,384	2,618	2,468	244	269	416	1,367	2,474	256

* Exclusive of Providence city.

DISEASES OF THE LIVER.

There were 91 deaths reported, in 1898, as having been caused by structural diseases of the liver.

This number represents 1.32 per cent. of all causes, and a proportion of .22 to every 1,000 of the population.

Of the 91 decedents, there were 41 males and 50 females, or 122 females to every 100 males.

There were 31 of native parentage, and 60 of foreign, or about 52 of native to every 100 of foreign.

Seventy-nine of the whole number were of persons of 40 years of age and over.

In the age period of from 5 to 40, there were but 11 decedents from diseases of the liver.

The mortality from such diseases does not depend to any marked extent upon the influence of season.

Table LXXXII will present various facts relating to diseases of the liver during thirty-three years :

TABLE LXXXII.

Mortality from Diseases of the Liver, 1866 to 1898, inclusive.

YEARS.	Number of Deaths.		SEX.		PARENTAGE.		DIVISIONS OF THE STATE.					
	Number of Deaths.	Per cent.	Males.	Females.	Native.	Foreign.	Bristol County.	Kent County.	Newport County.	Providence County.*	Providence City.	Washington County.
1866-1870.....	201	1.31	113	88	118	83	12	14	36	47	70	22
1871-1875.....	202	.98	91	111	119	83	18	14	12	56	88	14
1876.....	45	1.09	26	19	27	18	1	5	5	11	18	5
1877.....	52	1.17	23	29	31	21	1	.....	7	16	24	4
1878.....	49	1.10	25	24	32	17	8	1	6	14	18	2
1879.....	52	1.24	27	25	31	21	4	4	2	14	22	6
1880.....	58	1.27	29	29	40	18	4	3	8	15	25	3
1876-1880.....	256	1.15	130	126	161	95	18	13	28	70	107	20
1881.....	46	.92	30	16	21	25	2	2	6	8	24	4
1882.....	62	1.22	34	28	36	26	3	5	10	17	24	3
1883.....	51	.94	27	24	20	31	5	6	4	16	18	2
1884.....	48	.93	22	26	23	25	5	3	5	2	31	2
1885.....	61	1.13	24	37	32	29	2	6	6	21	24	2
1881-1885.....	268	1.03	137	131	132	136	17	22	31	64	121	13
1886.....	54	.92	29	25	26	28	4	4	4	14	28	.....
1887.....	86	1.35	40	46	38	48	3	5	3	31	39	5
1888.....	68	1.03	38	30	36	32	1	5	6	28	26	2
1889.....	70	1.12	30	40	31	39	1	2	10	26	29	2
1890.....	65	.94	42	23	29	36	3	4	6	21	26	5
1886-1890.....	343	1.07	179	164	160	183	12	20	29	120	148	14
1891.....	81	1.23	41	40	28	53	3	4	9	26	38	1
1892.....	89	1.20	39	50	34	55	3	5	4	27	45	5
1893.....	72	.97	43	29	30	42	4	8	6	15	36	3
1894.....	93	1.30	43	50	42	51	2	9	9	42	24	7
1895.....	81	1.07	43	38	28	53	.....	6	10	27	31	7
1891-1895.....	416	1.15	209	207	162	254	12	32	38	137	174	23
1896.....	110	1.47	56	54	37	73	3	7	6	40	48	6
1897.....	58	.82	31	27	22	36	4	3	6	15	25	5
1898.....	91	1.32	41	50	31	60	3	7	6	26	41	8
Total, 33 years..	1,945	1.12	987	958	942	1,003	99	132	192	575	822	125

* Exclusive of Providence city.

DROPSY.

During 1898 there were 3 deaths returned as having been caused by dropsy. This number represents .04 per cent. of deaths from all causes.

It has been repeatedly observed in previous reports that although this term is a misnomer in a large measure, and conveys no definite idea of the pathological condition preceding the dropsical accumulation, it is, nevertheless, the only cause returned, and as it is in some instances the apparently immediate cause of death, it is given a place in the Registration Reports; and as a frequent result and concomitant of diseases of the kidneys and liver, it has been placed in comparison with them in the following Table.

Of the 3 decedents from dropsy, 2 were males and 1 was female.

Of the parentage, 1 was of native and 2 of foreign parentage.

It will be noticed that the number of deaths from dropsy, for 1898, was but three. This is explained by the fact that the diagnosis of dropsy was not accepted as a cause but as a symptom. In these cases strenuous effort was made by the Registrar to ascertain the cause of the dropsy from the physician, in every case so reported. The large number returned from that cause was distributed under the headings of heart disease, liver disease, or disease of the kidneys, as finally ascertained from the physician in charge. These groups of diseases are therefore correspondingly increased over the numbers of previous years.

In these three cases the causation of the ascites was so obscure that no decision could be arrived at, either as a result of the physician having been called after death, or in the absence of any previous history.

An examination of Table LXXXIII will serve as evidence of the greater carefulness and better judgment of the medical practitioners of the present time, inasmuch as the causes of dropsy are now better understood and reported, and for that reason the number of deaths attributed to dropsy is very small.

TABLE LXXXIII.

*Mortality from Kidney and Liver Diseases compared with Dropsy (so returned)
for thirty-three years, 1866-1898.*

YEARS.	DEATHS FROM KIDNEY DISEASES.			DEATHS FROM LIVER DISEASES.			TOTAL DEATHS FROM KIDNEY AND LIVER DISEASES.			DEATHS FROM DROPSY.			Diminution of Dropsy in reference to Kidney and Liver Diseases.	Percentage of Dropsy to all.
	Total.	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.		
1866-1870.....	135	94	41	201	113	88	336	207	129	302	143	159	-34	1.96
1871-1875.....	295	167	128	202	91	111	497	258	239	294	130	164	-203	1.43
1876.....	50	22	28	45	26	19	95	48	47	70	35	35	-25	1.70
1877.....	67	40	27	52	23	29	119	63	56	64	25	39	-55	1.44
1878.....	80	50	30	40	25	24	129	75	54	44	23	11	-85	.99
1879.....	79	51	28	52	27	25	131	78	53	54	28	26	-77	1.21
1880.....	91	52	39	58	29	29	149	81	68	46	22	24	-103	.95
1876-1880.....	367	215	152	256	130	126	623	345	278	278	133	145	-345	1.25
1881.....	79	40	39	46	30	16	125	70	55	48	23	25	-77	.96
1882.....	86	50	36	62	34	28	148	84	64	52	23	29	-96	1.02
1883.....	129	72	57	51	27	24	180	99	81	47	21	26	-133	.89
1884.....	118	53	65	48	22	26	166	75	91	40	20	20	-126	.78
1885.....	159	92	67	61	24	37	220	116	104	44	30	14	-176	.82
1881-1885.....	571	307	264	268	137	131	839	444	395	231	117	114	-608	.89
1886.....	155	85	70	54	29	25	209	114	95	45	18	27	-164	.77
1887.....	169	92	77	86	40	46	255	132	123	35	14	21	-220	.55
1888.....	213	102	111	68	38	30	281	140	141	47	18	29	-234	.71
1889.....	210	119	91	70	30	40	280	149	131	42	14	28	-238	.67
1890.....	229	116	113	65	42	23	294	158	136	44	18	26	-250	.63
1886-1890.....	976	514	462	343	179	164	1,319	693	626	213	82	131	-1,106	.67
1891.....	245	123	122	81	41	40	326	164	162	35	8	27	-291	.52
1892.....	258	135	123	89	39	50	347	174	173	39	17	22	-308	.53
1893.....	302	154	148	72	43	29	374	197	177	39	11	28	-335	.52
1894.....	313	152	161	93	43	50	406	195	211	7	3	4	-399	.10
1895.....	311	176	165	81	43	38	422	219	203	4	1	3	-418	.05
1891-1895.....	1,459	740	719	416	209	207	1,875	949	926	124	40	84	-1,751	.31
1896.....	395	209	186	110	56	54	505	265	240	2	1	1	-503	.03
1897.....	387	198	189	58	31	27	445	229	216	2	1	1	-443	.03
1898.....	471	228	243	91	41	50	562	269	293	3	1	2	-559	.01
Total, 33 years.	5,056	2,672	2,384	1,945	987	958	7,001	3,659	3,342	1,449	648	801	-5,552	.83

MEASLES.

There were 18 decedents from measles as a cause of death in 1898. The number is 15 less than in the preceding year.

This number represents .26 per cent. of all causes, and a proportion of .04 to every 1,000 of the population.

Of the 18 there were 11 males and 7 females. The sexes as a rule seem to be nearly equally susceptible to measles and to mortality therefrom.

Of parentage there were 3 of native, and 15 of foreign.

During the last ten years the proportion of mortality from measles has been about 53 of native to every 100 of foreign parentage.

During 1898 the number of decedents under 5 years of age was 15.

The number in the different divisions of the State may be found in Table LXXXIV :

TABLE LXXXIV.

Mortality in the State from Measles, 1866 to 1898.

YEARS.	Number of Deaths.	Per cent.	SEX.		PARENTAGE.		DIVISIONS OF THE STATE.					
			Males.	Females.	Native.	Foreign.	Bristol County.	Kent County.	Newport County.	Providence County.*	Providence City.	Washington County.
5 years, 1866-1870.	92	.60	44	48	26	66	6	4	12	35	25	.....
5 years, 1871-1875.	102	.50	43	59	53	49	5	12	7	39	35	4
1876.....	4	.10	.....	4	1	3	.....	.....	.....	4	.....	.....
1877.....	11	.25	3	8	2	9	.....	.....	1	8	2	.....
1878.....	81	1.82	39	42	25	56	2	3	.....	26	50	.....
1879.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
1880.....	9	.20	3	6	2	7	.....	.....	.....	6	3	.....
1876-1880.....	105	.47	45	60	30	75	2	3	1	44	55	.....
1881.....	37	.74	17	20	15	22	.....	1	2	9	25	.....
1882.....	6	.12	1	5	.....	6	.....	.....	.....	2	4	.....
1883.....	14	.27	11	3	9	5	.....	1	.....	3	8	2
1884.....	18	.35	10	8	5	13	1	6	1	3	7	.....
1885.....	45	.84	27	18	19	26	.....	7	2	27	8	1
1881-1885.....	120	.46	66	54	48	72	1	15	5	44	52	3
1886.....	18	.30	11	7	4	14	.....	5	.....	4	9	.....
1887.....	132	2.08	69	63	57	75	.....	5	8	26	90	3
1888.....	11	.22	5	6	3	8	.....	2	.....	7	2	.....
1889.....	29	.47	15	14	10	19	.....	8	.....	7	14	.....
1890.....	92	1.32	45	47	42	50	2	10	.....	41	31	8
1886-1890.....	282	.88	145	137	116	166	2	30	8	85	146	11
1891.....	12	.18	7	5	4	8	1	2	2	3	3	1
1892.....	28	.38	14	14	10	18	.....	2	4	11	11	.....
1893.....	100	1.34	56	44	33	67	.....	11	.....	22	64	3
1894.....	9	.12	4	5	3	6	.....	.....	2	2	5	.....
1895.....	53	.70	24	29	11	42	.....	5	.....	8	40	.....
1891-1895.....	202	.54	105	97	61	141	1	20	8	46	123	4
1896.....	58	.77	28	30	22	36	.....	6	3	28	19	2
1897.....	33	.46	21	12	11	22	5	1	1	8	18	.....
1898.....	18	.26	11	7	3	15	.....	.....	1	12	4	1
Total, 33 years..	1,012	.58	508	504	370	642	22	91	46	341	487	25

* Exclusive of Providence city.

OLD AGE.

The number of deaths, in 1898, attributed to old age as a cause, was 205. This is 46 more than in 1897.

This number represents 2.97 per cent. of all causes, and a proportion of .59 to every 1,000 of the population.

Of the 205 decedents from old age, 86 were males, and 119 were females, or about 72 males to every 100 females.

Of the parentage of the 205, there were 135 of native and 70 of foreign parentage, or 193 of native to every 100 of foreign.

The following Table will present the statistics of deaths in Rhode Island from old age for thirty-three years :

TABLE LXXXV.

Mortality in the State from Old Age, 1866 to 1898, inclusive.

YEARS.	Number of Deaths.		SEX.		PARENTAGE.		DIVISIONS OF THE STATE.					
			Males.	Females.	Native.	Foreign.	Bristol County.	Kent County.	Newport County.	Providence County.*	Providence City.	Washington County.
5 years, 1866-1870	998	6.48	366	632	761	284	55	102	157	233	267	134
1871-1875.....	1,158	5.64	467	691	893	325	61	103	161	332	348	153
1876.....	241	6.18	107	134	177	64	12	14	38	65	71	41
1877.....	213	5.00	96	117	145	68	12	23	29	57	63	29
1878.....	232	5.25	84	138	172	50	15	8	32	76	61	30
1879.....	220	5.22	82	138	152	68	14	19	26	69	67	25
1880.....	273	5.95	121	152	186	87	12	20	34	90	73	41
1876-1880.....	1,169	5.24	490	679	892	337	65	84	159	357	335	169
1881.....	247	5.29	101	146	167	80	12	24	36	93	72	10
1882.....	283	5.89	110	173	190	93	20	25	40	106	79	13
1883.....	275	5.22	105	170	184	91	17	18	44	91	84	21
1884.....	293	5.68	101	192	196	97	16	20	39	106	86	26
1885.....	267	4.95	86	181	183	84	9	32	47	87	70	22
1881-1885.....	1,365	5.27	503	862	920	445	74	119	206	483	391	92
1886.....	276	4.69	101	175	181	95	16	24	36	100	73	27
1887.....	278	4.38	103	175	167	111	17	19	29	109	76	28
1888.....	290	4.35	108	182	198	92	16	26	25	124	64	35
1889.....	227	3.63	75	152	136	91	10	23	23	73	71	27
1890.....	198	2.87	72	126	123	75	16	19	19	59	63	22
1886-1890.....	1,269	3.97	459	810	805	464	75	111	132	465	347	139
1891.....	185	2.80	83	102	121	64	18	16	26	65	41	19
1892.....	256	3.46	95	161	168	88	9	24	29	91	71	32
1893.....	183	2.44	72	111	113	70	8	16	19	33	92	15
1894.....	187	2.61	60	127	109	78	12	21	23	64	51	16
1895.....	197	2.61	82	115	105	92	17	17	16	87	51	9
1891-1895.....	1,008	2.78	392	616	616	392	64	94	113	340	306	91
1896.....	206	2.74	84	122	112	94	8	23	13	89	57	16
1897.....	159	2.24	51	108	96	63	7	9	6	69	57	11
1898.....	205	2.97	86	119	135	70	9	11	30	79	56	20
Total, 33 years..	7,537	4.31	2,898	4,639	5,113	2,424	418	656	977	2,497	2,164	825

* Not including Providence city.

PERITONITIS.

There were 11 deaths which were caused by peritonitis during 1898.

This number represents .16 per cent. of all causes, and a proportion of .03 to every 1,000 of the population.

Sex.—Of the 11 decedents from peritonitis there were 2 males and 9 females, a proportion of 22 males to every 100 females.

Parentage.—There were 2 of native parentage and 9 of foreign, or a ratio of 22 native to every 100 of foreign parentage.

Season.—The seasons do not as a rule have a notable influence in regard to the mortality from peritonitis.

PNEUMONIA.

There were 542 decedents from pneumonia in 1898. The number is 93 less than in 1897.

This number represents 7.8 per cent. of all causes, and a proportion of 1.3 to every 1,000 of the population.

Sex.—Of the 542 decedents from pneumonia, and including congestion of the lungs, 299 were males and 243 were females; or about 81 females to every 100 males.

Parentage.—By parentage, there were 218 of native and 324 of foreign parentage. The proportion of decedents from pneumonia was about 67 of native to each 100 of foreign parentage.

Season.—There were 258, or about 47 per cent., of the deaths that occurred during the first four months of the year. The largest mortality by months was 83 in March and 83 in December.

Pneumonia, as a cause of death, has increased in the ratio to whole number of deaths, during the last thirty-three years, from an average of 6.3 per cent., during the first ten years, to an average of 8.8 per cent. during the last ten, including 1898.

The following Table presents, for each of the last thirty-three years, the number and the percentage, with the sex and the parentage of the decedents from pneumonia, and the number in each year, in each division of the State :

TABLE LXXXVI.

Mortality in the State from Pneumonia, 1866 to 1898, inclusive.

YEARS.	Number of Deaths.	Per cent.	SEX.		PARENTAGE.		DIVISIONS OF THE STATE.					
			Males.	Females.	Native.	Foreign.	Bristol County.	Kent County.	Newport County.	Providence County.*	Providence City.	Washington County.
5 years, 1866-1870	928	6.0	467	461	556	372	43	56	66	287	407	69
1871-1875.....	1,331	6.5	667	664	783	548	54	71	62	385	662	97
1876.....	339	8.2	164	175	162	177	13	23	16	97	163	27
1877.....	226	5.1	104	122	127	99	10	7	14	81	98	16
1878.....	317	7.1	143	174	176	141	10	11	18	110	140	28
1879.....	311	7.4	148	163	163	148	7	15	15	103	156	15
1880.....	364	7.9	180	184	177	187	26	16	18	92	192	20
1876-1880.....	1,557	7.0	739	818	805	752	66	72	81	483	749	106
1881.....	327	6.5	177	150	190	137	10	23	17	81	174	22
1882.....	344	7.2	178	166	163	181	10	22	24	61	176	21
1883.....	400	7.8	192	208	198	202	19	21	34	108	204	14
1884.....	363	7.1	167	196	192	171	10	13	17	125	172	26
1885.....	465	8.6	214	251	271	194	15	20	33	151	227	19
1881-1885.....	1,899	7.3	928	971	1,014	885	64	99	125	556	953	102
1886.....	481	8.2	232	249	234	247	17	29	37	161	209	28
1887.....	488	7.7	260	228	227	261	13	27	39	142	227	40
1888.....	508	7.7	274	234	227	281	16	37	29	171	219	36
1889.....	483	7.7	255	228	213	270	18	37	29	169	208	22
1890.....	569	8.2	288	281	247	322	16	36	30	206	246	35
1886-1890.....	2,529	7.9	1,309	1,220	1,148	1,381	80	166	164	849	1,109	161
1891.....	568	8.5	270	298	247	321	17	40	70	183	232	26
1892.....	655	8.8	335	320	265	390	18	57	52	216	277	35
1893.....	776	10.4	412	364	319	457	18	42	49	232	392	43
1894.....	665	9.3	344	321	305	360	18	47	46	221	276	51
1895.....	685	9.1	340	345	289	396	28	49	25	213	292	48
1891-1895.....	3,349	9.2	1,701	1,648	1,425	1,924	99	235	242	1,098	1,469	206
1896.....	669	8.9	366	303	274	395	23	45	39	263	256	43
1897.....	635	8.9	337	298	268	367	25	33	36	251	251	36
1898.....	542	7.8	299	243	218	324	8	39	41	198	241	15
Total, 33 years..	13,439	7.7	6,813	6,626	6,491	6,948	462	816	856	4,373	6,097	835

* Exclusive of Providence city.

TABLE LXXXVII.

Exhibiting the Number of Decedents from Pneumonia, in each of the several Periods of Life, during each of the last thirty-three years, from 1866 to 1898, inclusive.

YEARS.	PERIODS OF LIFE.											
	Under 5.	5 to 10.	10 to 15.	15 to 20.	20 to 30.	30 to 40.	40 to 50.	50 to 60.	60 to 70.	70 to 80.	80 and over.	Not stated.
1866.....	57	4	4	5	12	10	14	21	25	32	9	.....
1867.....	57	9	2	3	10	11	13	16	25	13	12	1
1868.....	70	4	3	3	15	8	16	18	19	27	13	.....
1869.....	64	11	1	2	11	12	9	28	25	16	11	.....
1870.....	84	6	5	4	6	7	8	14	20	19	8	1
1871.....	71	7	2	7	10	17	16	16	35	17	19	1
1872.....	83	5	1	7	17	20	19	22	24	19	11	1
1873.....	105	4	8	3	10	14	16	17	24	23	10	.....
1874.....	76	9	4	6	17	17	25	21	40	27	8	.....
1875.....	120	9	3	8	22	30	35	39	61	43	28	2
1876.....	116	5	4	3	20	20	32	35	48	39	17	.....
1877.....	79	2	.....	7	15	15	24	27	22	24	9	2
1878.....	115	9	4	10	14	17	28	20	42	45	13	.....
1879.....	102	8	1	3	14	27	26	35	38	38	19	.....
1880.....	95	18	3	16	14	33	37	46	47	43	12	.....
1881.....	102	4	2	5	15	22	26	45	48	31	26	1
1882.....	71	3	4	14	22	36	49	33	41	46	21	4
1883.....	88	15	2	13	32	33	40	53	49	46	27	2
1884.....	103	14	5	11	23	34	24	32	53	37	23	4
1885.....	121	9	10	8	23	29	50	49	76	59	29	2
1886.....	111	10	7	19	32	35	50	58	74	55	30	.....
1887.....	132	15	7	7	32	43	51	56	64	53	28	.....
1888.....	103	20	5	15	49	48	61	62	70	54	21	.....
1889.....	120	14	3	20	27	36	51	57	77	47	31	.....
1890.....	161	7	10	12	46	55	55	55	79	54	33	2
1891.....	126	10	4	11	42	54	60	70	84	70	37	.....
1892.....	139	10	9	10	39	69	75	74	110	71	44	5
1893.....	176	25	8	17	49	68	96	115	102	70	50	.....
1894.....	169	19	9	18	47	56	67	72	78	77	52	1
1895.....	172	16	9	20	49	56	77	66	94	77	49	.....
1896.....	220	20	7	17	33	55	56	71	83	66	40	1
1897.....	194	14	10	17	33	46	58	58	73	75	57	.....
1898.....	202	11	4	9	23	39	40	58	66	54	36	.....
Total, 33 years	3,804	346	160	330	823	1,072	1,304	1,454	1,816	1,467	833	30

Age.—Of the decedents from pneumonia, during the period of thirty-three years, 28.3 per cent. were under 5 years of age. Of over fifty years of age the number of decedents was 41.4 per cent. of the whole number. The following summary will present the percentages for 1898, in round numbers :

Under five years of age.....	28 per cent.
Five years and under twenty, and not stated.....	6 per cent.
Twenty years and under fifty.....	21 per cent.
Fifty years and over.....	42 per cent.

SCARLET FEVER.

The number of deaths returned as having been caused by scarlet fever, in 1898, was 21. The number is 8 less than in 1897.

This number represents .3 per cent. of all causes, and a proportion of .05 to every 1,000 of the population.

Sex.—Of the 21 decedents from scarlet fever, 10 were males and 11 were females, or 110 females to every 100 males.

Parentage.—There were 14 of native parentage and 7 of foreign, a proportion of 50 of foreign parentage to every 100 of native.

The following Table will present the statistics of scarlet fever for the last forty-three years, from 1856 to 1898, inclusive, the number and percentage and sex of the decedents from scarlet fever, and the number from scarlet fever in each division of the State. It also shows, from 1866 to 1898, inclusive, the parentage of the decedents from scarlet fever :

TABLE LXXXVIII.

Mortality in the State from Scarlet Fever, 1856 to 1898, inclusive.

YEARS.	Number of Deaths.	Per cent.	SEX.		PARENTAGE.		DIVISIONS OF THE STATE.					
			Males.	Females.	Native.	Foreign.	Bristol County.	Kent County.	Newport County.	Providence County.*	Providence City.	Washington County.
10 yrs., 1856-1865.	1,440	5.2	700	740	†	†	57	79	191	414	634	65
1866-1870.....	496	3.2	231	265	210	286	26	32	27	142	236	33
1871-1875.....	1,053	5.1	503	550	513	540	40	53	51	302	534	73
1876.....	80	1.9	34	46	42	38	3	2	7	21	35	12
1877.....	62	1.4	26	36	29	33	14	4	3	21	12	8
1878.....	86	1.9	41	45	35	51	3	5	3	14	57	4
1879.....	311	7.4	164	147	130	181	3	6	4	37	255	6
1880.....	468	10.0	215	253	216	252	22	30	11	143	243	19
1876-1880.....	1,007	4.5	480	527	452	555	45	47	28	236	602	49
1881.....	138	3.0	79	59	62	76	11	25	12	41	45	4
1882.....	45	0.9	24	21	16	29	.....	3	16	7	18	1
1883.....	34	0.6	17	17	14	20	1	1	5	9	16	2
1884.....	94	1.8	39	58	41	56	.....	.....	8	28	57	4
1885.....	91	1.7	36	55	48	43	.....	3	6	24	38	20
1881-1885.....	405	1.6	195	210	181	224	12	32	47	109	174	31
1886.....	88	1.5	46	42	29	59	.....	13	2	41	30	2
1887.....	266	4.2	120	146	95	171	9	16	4	80	154	3
1888.....	207	3.1	101	106	91	116	1	29	10	87	80	.....
1889.....	51	0.8	24	27	14	37	3	2	6	14	25	1
1890.....	16	0.2	11	5	6	10	.....	3	.....	2	8	3
1886-1890.....	638	2.0	302	326	235	353	13	63	22	224	297	9
1891.....	33	0.5	17	16	12	21	1	3	.....	9	17	3
1892.....	67	0.9	38	29	21	46	1	4	4	20	38	.....
1893.....	193	2.6	86	107	75	118	1	23	3	68	97	1
1894.....	123	1.7	59	64	52	71	2	8	2	55	56	.....
1895.....	107	1.4	52	55	42	65	1	2	3	37	63	1
1891-1895.....	523	1.4	252	271	202	321	6	40	12	189	271	5
1896.....	53	0.7	30	23	24	29	.....	2	1	9	33	8
1897.....	29	0.4	15	14	13	16	1	1	4	10	12	1
1898.....	21	0.3	10	11	14	7	.....	1	1	13	4	2
Total, 43 years..	5,655	2.8	2,718	2,937	1,844	2,371	200	350	384	1,648	2,797	276

* Exclusive of Providence city.

† Records incomplete.

CROUP, DIPHTHERIA, AND SCARLET FEVER.

Season and Mortality.

The following Table is continued, to show by comparison the influence of season in regard to the mortality from croup and scarlet fever for forty-five years, and diphtheria for forty-one years. The Table will give the average monthly and quarterly percentages of deaths from each cause :

TABLE LXXXIX.

MONTHS.	CROUP.		DIPHTHERIA.		SCARLET FEVER.	
	1853-1898.		1858-1898.		1853-1898.	
	Number of deaths.	Per cent.	Number of deaths.	Per cent.	Number of deaths.	Per cent.
January.....	397	12.59	561	9.69	775	12.21
February.....	349	11.07	421	7.27	704	11.09
March.....	287	9.10	447	7.72	683	9.97
First Quarter.....	1,033	32.76	1,429	24.68	2,112	33.27
April.....	231	7.33	400 ^b	6.91	544	8.57
May.....	164	5.20	401	6.92	563	8.87
June.....	139	4.41	341	5.89	484	7.62
Second Quarter.....	534	16.94	1,142	19.72	1,591	25.06
July.....	107	3.39	320	5.53	365	5.75
August.....	89	2.82	343	5.92	301	4.74
September.....	185	5.87	433	7.48	318	5.01
Third Quarter.....	381	12.08	1,096	18.93	984	15.50
October.....	331	10.50	725	12.52	437	6.89
November.....	411	13.09	754	13.02	531	8.41
December.....	433	13.73	614	11.13	690	10.87
Fourth Quarter.....	1,205	38.22	2,123	36.67	1,661	26.17
Totals.....	3,153	100.00	5,790	100.00	6,348	100.00

SUICIDE.

The number of deaths by suicide, in Rhode Island, during 1898, was 46, which is 5 more than in the preceding year.

There were 38 male and 8 female decedents from that cause, or a proportion of nearly 5 males to every 1 of the females.

Of the 46, 20 were of native parentage and 26 of foreign.

The means of self-destruction, according to the returns, were as follows :

By arsenic, 1 case ; by carbolic acid, 4 ; by cyanide of potassium, 2 ; by cutting throat, 2 ; by drowning, 8 ; by hanging, 9 ; by illuminating gas, 4 ; by jumping from window, 1 ; by laudanum, 1 ; by "paris green," 3 ; by "rough on rats," 1 ; by shooting, 8 ; by strychnine, 1 ; by unknown poison, 1.

TABLE XC.

Mortality in the State from Suicide, 1866 to 1898, inclusive.

YEARS.	Number of Deaths.	Per cent.	SEX.		PARENTAGE.		DIVISIONS OF THE STATE.					
			Males.	Females.	Native.	Foreign.	Bristol County.	Kent County.	Newport County.	Providence County.*	Providence City.	Washington County.
1866-1870.....	86	.56	67	19	66	20	2	7	6	31	34	6
1871-1875.....	89	.43	61	28	57	32	3	9	6	20	43	8
1876.....	18	.46	15	3	6	12	.....	.....	1	5	10	2
1877.....	22	.52	16	6	15	7	.....	2	1	5	12	2
1878.....	21	.50	16	5	12	9	3	2	.....	5	7	4
1879.....	13	.31	10	3	5	8	.....	.....	.....	5	7	1
1880.....	10	.20	5	5	8	2	.....	1	1	6	2	.....
1876-1880.....	84	.38	62	22	46	38	3	5	3	26	38	9
1881.....	23	.49	19	4	15	8	.....	5	3	.....	14	1
1882.....	31	.64	23	8	23	8	1	4	3	8	12	3
1883.....	25	.47	18	7	11	14	.....	.....	2	8	15	.....
1884.....	22	.43	20	2	13	9	.....	1	1	6	11	3
1885.....	20	.37	16	4	11	9	1	1	6	3	6	3
1881-1885.....	121	.47	96	25	73	48	2	11	15	25	58	10
1886.....	17	.29	16	1	12	5	1	3	2	4	7	.....
1887.....	16	.25	13	3	8	8	2	.....	2	5	7	.....
1888.....	21	.42	20	1	15	6	.....	1	3	6	9	2
1889.....	24	.38	20	4	9	15	.....	2	5	7	10	.....
1890.....	19	.28	15	4	12	7	2	.....	1	8	5	3
1886-1890.....	97	.30	84	13	56	41	5	6	13	30	38	5
1891.....	40	.61	27	13	15	25	2	2	.....	10	24	2
1892.....	19	.26	15	4	10	9	.....	.....	4	6	8	1
1893.....	21	.38	18	3	10	11	.....	2	.....	7	12	.....
1894.....	45	.63	36	9	24	21	1	3	5	14	19	3
1895.....	31	.41	22	9	13	18	3	2	5	5	13	3
1891-1895.....	156	.46	118	38	72	84	6	9	14	42	76	9
1896.....	38	.51	28	10	20	18	2	1	2	11	20	2
1897.....	41	.58	33	8	21	20	.....	4	5	11	18	3
1898.....	46	.67	38	8	20	26	.....	3	4	14	24	1
Total, 33 years..	758	.44	587	171	431	327	23	55	68	210	349	53

* Exclusive of Providence city.

WHOOPIING COUGH.

The number of deaths from whooping cough, returned in 1898, was 40 more than the number in 1897.

Of the 96 decedents from whooping cough, 37 were males and 59 were females.

There were 50 decedents of native parentage and 46 of foreign, or a proportion of 109 of native to 100 of foreign.

Ninety-three of the decedents were under 5 years of age.

The following Table will present the mortality from whooping cough, for thirty-three years, 1866-1898, inclusive, with the death rate, sex, parentage, etc., of the decedents :

TABLE XCI.

Mortality in the State from Whooping Cough, 1865 to 1898, inclusive.

YEARS.	Number of Deaths.		SEX.		PARENTAGE.		DIVISIONS OF THE STATE.					
	Per cent.		Males.	Females.	Native.	Foreign.	Bristol County.	Kent County.	Newport County.	Providence County.*	Providence City.	Washington County.
5 years, 1866-1870	153	.99	78	75	68	85	2	13	14	51	63	7
1871-1875.....	160	.78	65	95	64	96	4	11	13	56	73	3
1876.....	48	1.17	19	29	20	28	5	3	1	7	31	1
1877.....	32	.72	18	14	6	26	.....	.....	1	15	16	.....
1878.....	54	1.22	26	28	30	24	.....	1	.....	9	43	1
1879.....	43	.96	17	26	22	21	.....	11	1	12	15	4
1880.....	20	.41	10	10	7	13	.....	.....	2	6	11	1
1876-1880.....	197	.88	90	107	85	112	5	15	5	49	116	7
1881.....	68	1.36	33	35	30	38	.....	2	2	24	40	.....
1882.....	71	1.40	33	38	32	39	.....	4	.....	26	40	1
1883.....	9	.17	6	3	5	4	1	.....	.....	4	4	.....
1884.....	43	.83	17	26	23	20	5	.....	2	6	28	2
1885.....	42	.79	23	19	24	18	.....	1	4	9	24	4
1881-1885.....	233	.90	112	121	114	119	6	7	8	69	136	7
1886.....	49	.83	28	21	17	32	4	3	.....	18	23	1
1887.....	21	.32	9	12	10	11	.....	.....	4	6	10	1
1888.....	44	.75	17	27	16	28	.....	3	2	11	28	.....
1889.....	77	1.23	39	38	36	41	1	12	1	20	43	.....
1890.....	70	1.00	25	45	25	45	2	2	7	27	30	2
1886-1890.....	261	.82	118	143	104	157	7	20	14	82	134	4
1891.....	77	1.16	39	38	37	40	3	1	3	15	54	1
1892.....	25	.34	10	15	14	11	.....	1	3	12	9	.....
1893.....	23	.31	8	15	9	14	1	.....	4	9	7	2
1894.....	129	1.80	52	77	62	67	3	19	15	33	55	4
1895.....	45	.60	19	26	13	32	.....	8	2	7	27	1
1891-1895.....	299	.84	128	171	135	164	7	29	27	76	152	8
1896.....	59	.79	25	34	24	35	2	4	7	16	24	6
1897.....	56	.79	27	29	26	30	1	8	11	14	17	5
1898.....	96	1.39	37	59	50	46	5	2	4	24	57	4
Total, 33 years..	1,514	.87	680	834	610	844	39	109	103	440	772	51

* Exclusive of Providence city.

TABLE XCII.

Presenting the Ratio of Mortality to the Whole Number of Specified Causes of Death, of Twenty-two Prominent Causes, for twenty-three years, 1876-1898.

CAUSES OF DEATH.	YEARS.																						
	1876.	1877.	1878.	1879.	1880.	1881.	1882.	1883.	1884.	1885.	1886.	1887.	1888.	1889.	1890.	1891.	1892.	1893.	1894.	1895.	1896.	1897.	1898.
ACCIDENTS (all kinds).....	3.40	3.10	2.89	2.43	3.51	3.04	3.44	2.84	3.80	3.09	3.22	3.25	3.01	3.46	3.60	3.54	4.18	3.58	3.29	3.92	3.96	3.71	4.30
APOPLEXY AND PARALYSIS.....	4.01	4.25	4.45	5.21	4.67	5.23	5.52	5.39	5.78	5.38	5.69	4.17	5.50	5.17	4.91	5.08	4.89	5.52	6.26	5.57	5.01	6.62	6.04
BRAIN, DISEASES OF.....	3.64	3.68	3.28	3.73	3.44	3.84	3.60	3.56	2.97	3.61	3.11	3.29	3.43	3.03	3.13	3.36	3.33	3.49	3.11	3.45	4.00	4.63	4.75
BRONCHITIS.....	1.46	1.62	1.89	1.47	1.98	1.80	2.08	2.04	2.29	3.09	2.96	2.77	3.42	4.20	4.01	3.74	4.16	4.24	3.57	3.66	3.69	3.19	3.43
CANCER.....	2.72	3.17	2.82	2.96	2.72	3.11	2.75	3.30	3.03	3.59	2.77	2.50	2.99	3.03	2.41	2.66	2.45	2.78	3.01	3.13	3.02	3.59	4.05
CHOLERA INFANTUM.....	6.41	6.08	3.97	3.81	5.43	5.15	6.77	4.73	6.31	5.16	6.27	5.60	7.08	6.80	8.39	8.25	8.56	8.18	6.98	6.68	7.29	6.00	6.80
CONSUMPTION.....	16.78	15.53	15.98	15.09	14.02	15.12	15.33	15.01	14.34	14.45	14.12	11.19	12.13	11.61	12.23	11.18	10.26	9.79	9.92	11.21	11.33	10.37	12.87
CONVULSIONS.....	2.28	1.95	2.65	2.47	2.88	2.18	2.29	2.47	2.70	2.06	2.06	2.51	2.31	2.17	2.24	1.97	2.19	2.05	2.05	1.60	1.36	.95	.78
CROUP.....	2.61	2.33	2.20	2.28	1.45	2.16	1.60	1.40	1.55	1.74	1.55	1.79	1.19	1.28	1.19	1.01	1.20	.68	.45	.40	.32	.24	.13
DEBILITY*.....	2.80	2.65	1.91	2.35	3.09	2.61	2.69	1.14	2.87	2.45	2.91	1.18	1.38	2.07	1.33	1.82	1.72	1.45	.96	1.12	1.02	1.31	.03

* Not infantile.

TABLE XCII.—Continued.

CAUSES OF DEATH.	YEARS.																						
	1876.	1877.	1878.	1879.	1880.	1881.	1882.	1883.	1884.	1885.	1886.	1887.	1888.	1889.	1890.	1891.	1892.	1893.	1894.	1895.	1896.	1897.	1898.
DIARRHŒA.....	1.85	2.11	1.25	1.96	1.52	1.65	1.87	2.55	2.20	1.55	1.59	2.09	1.20	1.40	1.37	1.26	1.73	1.59	1.17	.80	.78	.88	.87
DIPHTHERIA.....	4.07	41.56	10.28	6.14	3.40	4.63	2.10	1.88	2.31	1.83	3.90	4.53	2.86	2.23	3.01	1.54	1.20	2.13	1.87	4.54	3.79	3.26	1.35
DYSENTERY.....	1.28	1.22	.95	1.04	.61	.90	1.42	1.06	.78	.68	1.13	1.04	1.11	1.14	1.25	.89	.96	.57	.57	.55	.41	.63	.55
FEVERS.....	3.00	3.55	3.94	2.70	3.37	3.05	4.60	5.12	3.24	2.93	2.87	2.00	3.58	2.29	2.26	2.37	1.88	1.61	2.45	2.20	2.07	1.55	1.55
HEART, DISEASES OF.....	4.03	4.28	3.92	4.78	5.03	5.68	5.31	6.35	5.60	6.48	6.20	6.46	6.56	7.35	5.84	7.25	6.84	7.26	6.70	7.15	7.44	8.05	7.97
WHOOPING COUGH.....	1.23	.75	1.28	1.02	.44	1.46	1.48	.17	.83	.79	.83	.32	.75	1.23	1.00	1.16	.31	.31	1.82	.60	.59	.79	1.39
HYDROCEPHALUS.....	1.74	1.29	1.65	1.36	1.01	1.20	1.02	.87	.81	.31	.41	.47	.20	.37	.34	.30	.42	.17	.21	.23	.23	.23	.20
KIDNEYS, DISEASES OF.....	1.28	1.57	1.80	1.88	2.02	1.69	1.79	2.43	2.52	3.14	2.64	2.66	3.24	3.38	3.20	3.71	3.49	4.10	4.41	4.56	5.28	5.46	6.84
LIVER, DISEASES OF.....	1.15	1.06	1.06	1.17	1.29	.82	1.21	.83	.88	.87	1.08	1.34	1.19	1.30	.94	2.23	1.20	.98	1.31	1.08	1.47	.82	1.32
OLD AGE.....	6.18	5.00	5.25	5.22	5.95	5.29	5.89	5.22	5.68	4.95	4.69	4.38	4.35	3.63	2.87	2.80	3.46	2.48	2.63	2.63	2.76	2.21	2.98
PNEUMONIA.....	8.69	5.31	7.49	7.37	7.90	7.01	7.16	7.84	7.14	8.65	8.18	7.70	7.62	7.69	8.29	8.60	8.85	10.53	9.36	9.15	8.95	8.96	7.87
SCARLET FEVER.....	2.05	1.46	2.03	2.37	9.99	2.96	.94	.64	1.88	1.70	1.50	4.20	3.11	.82	.23	.50	.91	2.62	1.73	1.43	.71	.11	.31

TABLE XCIII.—BIRTHS.

Occupations of the Fathers.—1898.

OCCUPATIONS.	Number.	OCCUPATIONS.	Number.
Actors.....	3	Sail Makers.....	4
Agents and Canvassers.....	18	Sash and Blind.....	2
Architects.....	6	Screw.....	4
Army Officers.....	1	Soap.....	1
Artesian Well Sinkers.....	1	Shoe.....	84
Artists.....	3	Shuttle.....	2
Assayers and Analytical Chemists.....	6	Spectacle.....	1
Baggage Masters.....	5	Spindle.....	1
Bakers.....	83	Tool.....	19
Bankers and Brokers.....	18	Wringer.....	2
Bank Officers.....	3	Blacksmiths.....	111
Barbers.....	110	Bleachers and Fullers.....	38
Bartenders.....	29	Boat Builders.....	6
Base Ball Players.....	1	Boatmen.....	1
Belt Makers.....	3	Bookbinders.....	1
Bobbin.....	4	Bookkeepers.....	68
Boiler.....	27	Bootblacks.....	1
Bolt.....	6	Bottlers.....	7
Box.....	10	Brakemen.....	21
Brick.....	7	Brewers.....	21
Brush.....	4	Brick and Stone Layers.....	13
Cabinet.....	30	Butchers and Marketmen.....	72
Cap.....	1	Butlers.....	10
Carriage, and Trimmers.....	8	Cab Drivers and Hackmen.....	7
Cigar.....	9	Calenderers.....	1
Clock and Watch.....	7	Carders.....	26
Comb.....	1	Card Grinders.....	6
Core.....	8	Carpenters.....	451
Film.....	1	Chasers.....	4
Harness and Saddle.....	12	Civil Engineers.....	10
Hoop.....	1	Clergymen.....	22
Mattress.....	2	Clerks and Salesmen.....	432
Pattern.....	15	Clothiers.....	10
Reed and Harness.....	3	Coachmen.....	47

TABLE XCIII.—Continued.

OCCUPATIONS.	Number.	OCCUPATIONS.	Number.
Coal and Wood Dealers.....	12	Electricians.....	43
Dry Goods.....	2	Electrotypists.....	1
Fish and Oyster.....	8	Elevatormen.....	4
Furniture.....	4	Enamelers.....	3
Grain.....	6	Engineers and Firemen.....	186
Granite.....	1	Engravers.....	21
Hardware.....	3	Expressmen.....	36
Ice.....	6	Farmers.....	334
Junk.....	16	File Cutters.....	42
Leather.....	3	File Forgers.....	8
Liquor.....	63	Finishers.....	11
Lumber.....	2	Brass.....	6
Mineral Water.....	2	Fire Company Members.....	14
News.....	7	Fishermen and Oystermen.....	43
Paper.....	2	Fish Culturists.....	1
Provision.....	6	Florists.....	7
Shoe.....	9	Folders.....	14
Collectors.....	12	Foundrymen.....	2
Commercial Travelers.....	34	Fruiterers.....	15
Compositors.....	7	Furriers.....	1
Concreters.....	3	Gardeners.....	51
Conductors and Motormen.....	62	Gas Fitters.....	5
Confectioners.....	20	Glass Workers.....	1
Contractors and Builders.....	27	Grocers.....	124
Cooks and Caterers.....	34	Grooms.....	1
Coopers.....	5	Hatters.....	1
Coppersmiths.....	2	Heaters.....	3
Cutters.....	2	Horse Dealers.....	4
Cutters (Velvet).....	5	Horse Trainers.....	1
Decorators.....	5	Hostlers.....	55
Dentists.....	13	Hotel and Inn Keepers.....	1
Designers.....	5	Saloon and Restaurant.....	37
Die Cutters.....	2	Ice-men.....	8
Die Sinkers.....	4	Inspectors.....	20
Draughtsmen.....	14	Interpreters.....	1
Drivers.....	45	Insurance Agents.....	46
Druggists and Apothecaries.....	22	Real Estate.....	1
Dyers.....	59	Inventors.....	1

TABLE XCIII.—Continued.

OCCUPATIONS.	Number.	OCCUPATIONS.	Number.
Iron Rollers and Workers.....	13	Physicians.....	36
Janitors.....	24	Piano Movers.....	1
Jewelers.....	186	Pilots.....	2
Journalists (Editors and Reporters)....	9	Plasterers and Stucco Workers.....	32
Journeyman.....	15	Platers.....	9
Knitters.....	4	Electro.....	1
Laborers.....	2,573	Gold.....	2
Lamplighters.....	6	Plumbers.....	55
Lathers.....	3	Polishers.....	24
Laundrymen.....	8	Gold.....	1
Lawyers.....	16	Silver.....	2
Linemen.....	11	Polo Players.....	2
Longshoremen.....	27	Pork and Meat Cutters and Pork Packers	14
Loom Fixers.....	77	Porters.....	27
Machinists.....	455	Postmasters.....	4
Mail Carriers.....	13	Pressmen.....	3
Managers.....	16	Printers.....	45
Manufacturers.....	27	Proofreaders.....	1
Mariners.....	9	Property Men.....	1
Masons.....	111	Public Officers.....	6
Mechanics.....	44	Publishers.....	1
Melters.....	3	Railroad Officials.....	7
Merchants.....	102	Employees.....	31
Messengers.....	5	Refiners.....	2
Milkmen.....	20	Gold.....	4
Millwrights.....	2	Riggers.....	1
Moulders.....	105	Roll Coverers.....	3
Musicians.....	13	Roofers.....	3
Nurses.....	1	Rubber Workers.....	120
Operatives.....	1,201	Sailors.....	12
Opticians.....	1	Sculptors.....	1
Painters.....	206	Sea Captains and Ship Masters.....	7
Carriage.....	7	Secretaries.....	4
Paper Hangers.....	5	Servants.....	1
Pavers.....	4	Sextons.....	5
Pearl Workers.....	9	Sheriffs, Constables, and Policemen....	46
Peddlers.....	138	Ship Carpenters.....	1
Photographers and Lithographers.....	13	Showmen.....	3

TABLE XCIII.—Continued.

OCCUPATIONS.	Number.	OCCUPATIONS.	Number.
Silversmiths.....	57	Taxidermists.....	1
Slaters.....	3	Teachers and Professors.....	35
Soldiers.....	23	Teamsters.....	313
Stable Keepers.....	6	Telephone and Telegraph Operators....	2
Stampers.....	5	Tinsmiths.....	30
Stair Builders.....	1	Tobacconists.....	1
Station Agents.....	3	Treasurers.....	5
Steam Pipers.....	15	Type Setters.....	3
Stenographers.....	1	Type Writers.....	2
Stereotypers.....	2	Undertakers.....	12
Stevedores.....	3	Upholsterers.....	22
Stewards.....	1	Valets.....	2
Stone Cutters and Marble Workers.....	77	Veterinary Surgeons.....	4
Store Keepers.....	22	Waiters.....	16
Stove Fitters and Mounters.....	4	Watchmen.....	34
Students.....	1	Wheelwrights.....	12
Surveyors, Highway.....	1	Wire Workers.....	7
Superintendents and Overseers.....	106	Wood Finishers.....	9
Switchmen.....	14	Wood Turners.....	14
Tailors.....	69	Wool Sorters.....	13
Tanners and Curriers.....	5		

TABLE XCIV.—MARRIAGES.

Occupations of the Grooms.—1898.

OCCUPATIONS.	Number.	OCCUPATIONS.	Number.
Actors.....	6	Wringer Makers.....	2
Agents and Canvassers.....	14	Blacksmiths.....	48
Architects.....	1	Bleachers and Fullers.....	9
Artists.....	3	Boatmen.....	4
Baggage Masters.....	3	Bookbinders.....	2
Bakers.....	31	Bookkeepers.....	43
Bankers and Brokers.....	4	Bootblacks.....	1
Bank Officers.....	5	Bottlers.....	4
Barbers.....	35	Brakemen.....	8
Bartenders.....	14	Brass Workers.....	1
Belt Makers.....	1	Brewers.....	2
Bobbin.....	5	Brick and Stone Layers.....	5
Boiler.....	5	Building Movers.....	1
Bolt.....	2	Butchers and Marketmen.....	24
Box.....	6	Butlers.....	1
Brick.....	3	Cab Drivers and Hackmen.....	2
Cabinet.....	9	Calenderers.....	1
Carriage, and Trimmers.....	7	Carders.....	7
Cigar.....	3	Card Grinders.....	1
Clock and Watch.....	4	Carpenters.....	117
Core.....	1	Chasers.....	4
File.....	8	Chemists.....	4
Harness and Saddle.....	3	Civil Engineers.....	2
Hat.....	1	Clergymen.....	11
Paper.....	1	Clerks and Salesmen.....	258
Pattern.....	2	Clothiers.....	4
Reed.....	1	Coachmen.....	28
Sail.....	1	Coal and Wood Dealers.....	2
Shoe.....	9	Dry Goods.....	1
Soap.....	1	Fish and Oyster.....	5
Spectacle.....	1	Furniture.....	2
Spindle.....	1	Hardware.....	4
Spool.....	2	Horse.....	1
Tool.....	14	Ice.....	1

TABLE XCIV.—Continued.

OCCUPATIONS.	Number.	OCCUPATIONS.	Number.
Junk Dealers.....	2	Finishers, Brass.....	5
Leather.....	1	Fishermen and Oystermen.....	13
Liquor.....	6	Fire Company Members.....	2
News.....	4	Flagmen, Railroad.....	1
Monument.....	1	Florists.....	7
Paint and Varnish.....	1	Folders.....	2
Piano.....	1	Foundrymen.....	6
Provision.....	5	Fruiters.....	4
Shoe.....	5	Gardeners.....	22
Collectors.....	7	Gilders.....	1
Commercial Travelers.....	16	Grocers.....	25
Compositors.....	3	Hatters.....	1
Conductors and Motormen.....	32	Horse Trainers.....	1
Confectioners.....	4	Hostlers.....	20
Contractors and Builders.....	8	Hotel and Inn Keepers.....	7
Cooks and Caterers.....	16	Saloon and Restaurant.....	9
Coopers.....	1	Ice-men.....	1
Coppersmiths.....	2	Inspectors.....	7
Cutters.....	2	Insurance Agents.....	16
Decorators.....	2	Real Estate.....	3
Dentists.....	5	Iron Workers.....	2
Designers.....	4	Janitors.....	15
Die Sinkers.....	1	Jewelers.....	88
Draughtsmen.....	8	Jobbers.....	1
Drivers.....	19	Journalists (Editors and Reporters)....	5
Druggists and Apothecaries.....	22	Knitters.....	6
Dyers.....	29	Laborers.....	349
Electricians.....	7	Lathers.....	3
Elevatormen.....	2	Laundrymen.....	6
Enamellers.....	4	Lawyers.....	12
Engineers and Firemen.....	62	Life Saving Service Men.....	1
Engravers.....	6	Linemen.....	10
Etymologists.....	1	Longshoremen.....	5
Expressmen.....	1	Loom Fixers.....	11
Farmers.....	165	Lumbermen.....	1
File Cutters.....	8	Machinists.....	137
File Forgers.....	1	Mail Carriers.....	6
Finishers.....	8	Managers.....	11

TABLE XCIV.—Continued.

OCCUPATIONS.	Number.	OCCUPATIONS.	Number.
Manufacturers.....	19	Roofers.....	2
Mariners.....	5	Rubber Workers.....	22
Masons.....	26	Sailors.....	13
Mechanics.....	18	Sea Captains and Ship Masters.....	1
Merchants.....	37	Servants.....	2
Milkmen.....	12	Sextons.....	4
Millers.....	4	Sheriffs, Constables, and Policemen....	10
Moulders.....	24	Silversmiths.....	16
Musicians.....	4	Soldiers.....	6
Nurses.....	2	Stable Keepers.....	5
Operatives.....	388	Stair Builders.....	1
Opticians.....	1	Stampers.....	1
Organists.....	1	Station Agents.....	4
Painters and Glaziers.....	59	Stationers.....	1
Painters, Carriage.....	5	Steam Pipers.....	16
Paper Hangers.....	4	Stereotypers.....	2
Pavers.....	3	Stevadores.....	3
Paymasters.....	1	Stewards.....	2
Pearl Workers.....	2	Stone Cutters and Marble Workers....	13
Peddlers.....	19	Store Keepers.....	3
Photographers and Lithographers.....	12	Students.....	16
Physicians.....	20	Superintendents and Overseers.....	35
Piano Movers.....	1	Switchmen and Gatemen.....	1
Tuners.....	2	Tailors.....	17
Planters.....	3	Tanners and Curriers.....	2
Plasterers and Stucco Workers.....	5	Teachers and Professors.....	9
Plumbers.....	23	Teamsters.....	97
Polishers.....	19	Tinsmiths.....	10
Pork and Meat Cutters and Pork Packers	11	Trout Culturists.....	1
Porters.....	10	Undertakers.....	2
Postmasters.....	1	Upholsterers.....	6
Pressmen.....	5	Waiters.....	14
Printers.....	12	Watchmen.....	7
Public Officers.....	4	Wheelwrights.....	1
Railroad Employees.....	13	Wire Workers.....	8
Refiners, Gold.....	1	Wood Turners.....	7
Roll Covers.....	2	Wool Sorters.....	10

TABLE XCV.

Occupations and Ages of Decedents, from June 1, 1852, to January 1, 1899, comprising a period of forty-six years and seven months.

[OCCUPATIONS UNDER TEN, AND AGES UNDER TWENTY, EXCLUDED.]

OCCUPATIONS.		OCCUPATIONS.		OCCUPATIONS.	
Total Mortality.	Aggregate Ages.	Average Age.	Total Mortality.	Aggregate Ages.	Average Age.
MALES.					
Actors.....	15	522	Harness Makers.....	131	50.31
Agents.....	255	13,422	Pattern.....	81	58.59
Architects.....	15	871	Pump and Block.....	14	55.71
Artists.....	38	1,954	Rope.....	25	66.88
Bakers.....	159	10,468	Sail.....	38	58.08
Bankers and Brokers.....	148	8,762	Shoe.....	621	57.93
Bank Officers.....	66	4,248	Tool.....	30	52.90
Barbers.....	249	8,575	Watch and Clock.....	40	55.47
Bartenders.....	47	1,709	Blacksmiths and Farriers.....	636	54.15
Belt Makers.....	13	760	Bleachers and Fullers.....	68	50.85
Boiler.....	75	3,153	Boatmen.....	29	50.14
Box.....	18	814	Boat Builders.....	29	61.03
Broom and Brush.....	15	743	Bookbinders.....	36	46.27
Cabinet.....	138	8,017	Bookkeepers.....	424	44.98
Carriage, and Trimmers.....	74	4,081	Brakemen.....	129	29.43
Cigar.....	107	4,855	Brewers.....	20	48.90

TABLE XCV.—Continued.

OCCUPATIONS.	Total Mortality.	Aggregate Ages.	Average Age.	OCCUPATIONS.		Total Mortality.	Aggregate Ages.	Average Age.
MALES.								
Brick and Stone Layers.....	13	611	47.00	Confectioners.....	43	2,015	46.98.	
Butchers and Marketmen.....	294	15,142	51.50	Contractors and Builders.....	116	6,870	59.22.	
Calico Printers.....	57	3,106	54.49	Cooks and Caterers.....	110	5,325	48.41	
Callers.....	14	977	69.79	Coopers.....	129	8,490	65.81.	
Carpenters and Joiners.....	2,151	120,240	55.85	Coppersmiths.....	14	844	60.29.	
Chasers.....	14	518	37.00	Decorators.....	14	526	37.57.	
Civil Engineers.....	52	2,587	49.75	Dentists.....	48	2,247	52.26.	
Clerks and Salesmen.....	1,253	47,333	37.78	Designers.....	22	1,117	50.77.	
Clergymen.....	207	17,045	63.84	Die Sinkers.....	21	1,016	48.88.	
Clothiers.....	14	803	57.36	Draughtsmen.....	14	473	33.79.	
Coachmen.....	200	8,740	43.70	Drivers, Cab, etc.....	54	2,395	44.35.	
Coal and Wood Dealers.....	12	684	57.00	Car Conductors and Motormen.....	41	1,568	38.24	
Fish and Oyster.....	21	1,261	60.05	Druggists and Apothecaries.....	110	8,019	72.90	
Junk.....	13	714	54.92	Dyers.....	136	6,931	50.96	
Liquor.....	122	5,542	45.43	Electricians.....	13	492	37.85	
Lumber.....	16	895	55.94	Engineers and Firemen.....	444	21,800	49.30	
Provision.....	20	1,140	57.00	Engravers.....	139	6,711	48.28	
Shoe.....	12	623	51.92	Expressmen.....	108	5,265	51.12	
Collectors.....	26	1,497	57.58	Farmers.....	6,883	462,054	67.13	
Commercial Travelers.....	20	880	44.00	Finishers.....	23	1,223	53.17	

TABLE XCV.—Continued.

OCCUPATIONS.		Total Mortality.	Aggregate Age.	Average Age.	OCCUPATIONS.		Total Mortality.	Aggregate Ages.	Average Age.
MALES.									
File Cutters.....	92	3,774	41.02	Janitors.....	91	4,851	53.31		
Nail.....	12	490	40.83	Jewelers.....	1,096	45,552	41.56		
Fishermen and Oystermen.....	257	13,199	51.36	Journalists (Editors and Reporters).....	43	2,009	46.72		
Florists.....	60	3,302	55.03	Judges and Justices.....	16	1,047	65.41		
Founders.....	18	853	50.64	Laborers.....	10,361	513,042	49.52		
Foundrymen.....	12	687	57.25	Lamplighters.....	20	1,109	55.45		
Gardeners.....	294	17,250	58.67	Lapidaries.....	11	362	32.91		
Gas Fitters.....	61	2,696	44.20	Laundrymen.....	13	414	31.84		
Gilders.....	11	449	40.82	Lawyers.....	176	9,918	56.35		
Grocers.....	449	24,415	54.38	Libemen.....	10	491	49.10		
Gun and Locksmiths.....	24	1,314	54.75	Machinists.....	1,643	80,058	48.73		
Hatters.....	26	1,400	53.85	Mail Carriers.....	15	664	44.27		
Hostlers.....	142	6,144	43.27	Manufacturers.....	643	39,333	61.17		
Hotel and Inn Keepers.....	175	9,569	54.68	Mariners.....	529	26,373	49.85		
Saboon and Restaurant.....	196	9,054	46.19	Masons.....	905	50,597	55.81		
Stable.....	73	3,970	54.38	Mechanics.....	496	26,119	52.69		
Store.....	39	2,007	51.46	Merchants.....	1,306	76,714	58.74		
Inspectors.....	15	792	52.80	Milkmen.....	17	545	32.06		
Inventors.....	15	991	66.07	Millers.....	48	2,739	57.06		
Iron Rollers and Workers.....	14	633	45.21	Millwrights.....	37	2,464	66.59		

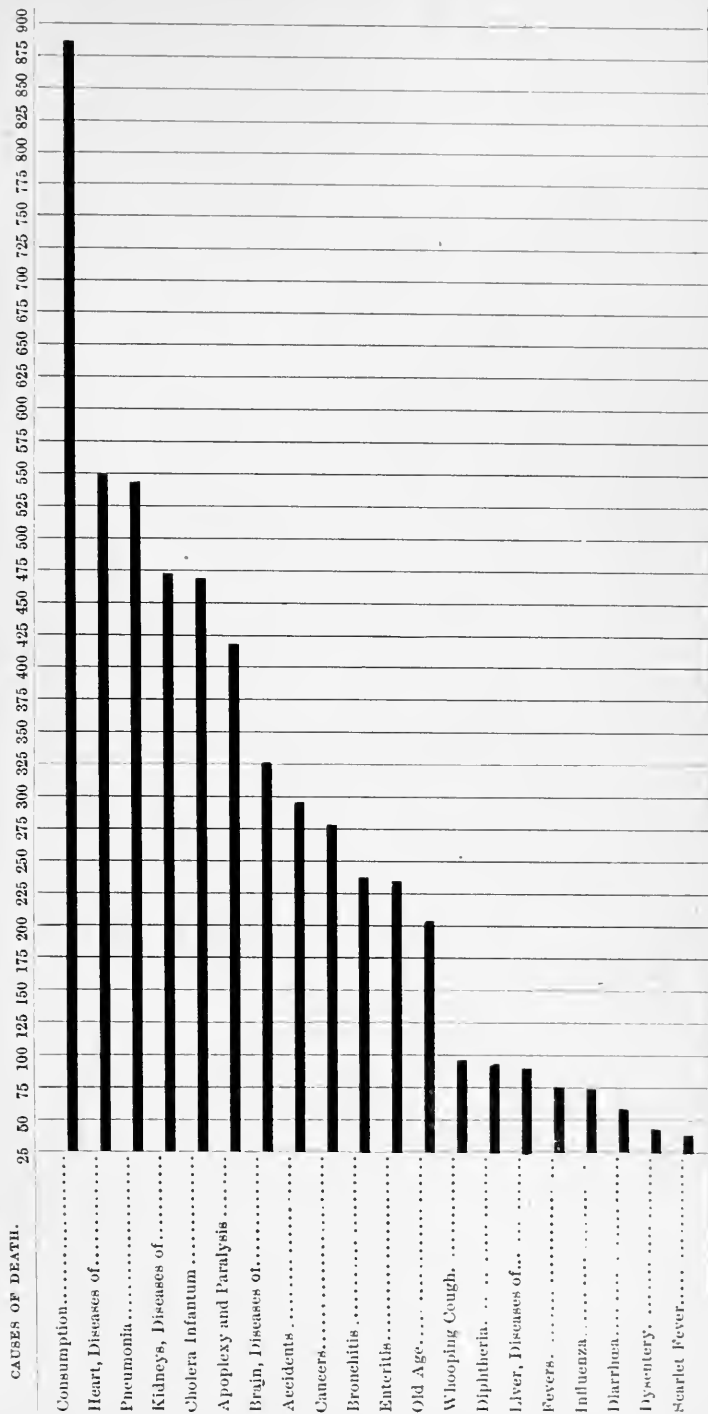
TABLE XCV.—Continued.

OCCUPATIONS.		Total Mortality.	Aggregate Ages.	Average Age.	OCCUPATIONS.		Total Mortality.	Aggregate Ages.	Average Age.
MALES.					MALES.				
Miners.....		15	836	55.80	Refiners		15	660	44.00
Moulders.....		338	15,630	46.20	Riggers.....		22	1,254	57.00
Musicians.....		75	3,592	47.80	Roll Coverers.....		32	1,852	57.87
Naval Officers.....		19	941	49.53	Rubber Workers.....		108	7,021	41.79
Nurses.....		14	743	53.07	Sailors		291	13,998	48.10
Operatives.....		2,536	111,835	44.10	Sea Captains		188	12,534	66.67
Painters and Glaziers.....		935	45,078	48.21	Servants.....		28	1,196	42.71
Paper Hangers.....		24	1,251	52.12	Sextons.....		12	751	62.58
Peddlers.....		176	8,812	50.07	Sheriffs, etc.....		130	7,197	55.36
Photographers and Lithographers.....		27	1,258	46.59	Ship Carpenters.....		79	5,476	69.32
Physicians.....		323	19,347	59.90	Silversmiths.....		125	5,592	44.74
Pilots.....		22	1,197	54.41	Soldiers.....		151	4,057	30.84
Plasterers.....		53	2,510	47.36	Stevadores		16	766	47.87
Plumbers.....		115	4,551	39.57	Stewards		25	1,169	46.76
Polishers.....		33	1,463	44.33	Stonecutters, etc.....		292	14,174	48.54
Pork and Meat Cutters and Pork Packers.....		19	830	43.68	Students.....		83	1,895	22.83
Porters.....		49	2,272	46.37	Superintendents and Overseers.....		344	18,988	55.20
Printers.....		208	11,878	57.11	Switchmen, Gatemen, etc.....		20	1,088	54.40
Public Officers.....		87	5,195	59.71	Tailors.....		440	24,311	55.25
Railroad Officials.....		98	4,559	46.52	Tanners and Curriers.....		56	3,536	63.14

TABLE XCV.—Concluded.

OCCUPATIONS.	Total Mortality.	Aggregate Ages.	Average Age.	OCCUPATIONS.	Total Mortality.	Aggregate Ages.	Average Age.
MALES.							
Teachers and Professors.....	144	7,139	49.58	Bookkeepers.....	15	400	30.66
Teasers.....	613	30,025	46.70	Clerks and Saleswomen.....	35	994	28.40
Telegraph and Telephone Operators.....	24	731	30.46	Cooks.....	49	2,638	53.84
Tinsmiths.....	134	6,337	47.29	Dressmakers and Seamstresses.....	373	15,099	40.48
Tobaccoists.....	14	830	59.29	Jewelers.....	16	456	28.50
Traders.....	283	14,259	50.39	Laboring.....	16	699	43.69
Tradesmen, General.....	185	8,919	48.21	Laundresses.....	45	2,241	49.80
Undertakers.....	49	2,927	59.73	Milliners.....	58	2,063	35.67
Upholsters.....	56	2,244	40.07	Nurses.....	117	6,945	59.36
Waiters.....	123	5,000	40.65	Operatives.....	1,037	32,723	31.56
Watchmen.....	178	10,137	56.45	Physicians.....	11	617	58.82
Wheelwrights.....	112	6,775	60.49	Rubber Workers.....	20	589	29.45
Wire Workers.....	14	604	43.14	Servants.....	549	26,273	47.86
Wood Turners.....	46	1,901	41.32	Sisters of Mercy.....	23	1,258	38.12
Wood Sorters.....	60	2,851	47.52	Tailresses.....	149	6,335	46.54
Total.....	46,096	2,433,800	52.80	Teachers.....	212	12,357	51.06
FEMALES.							
Boarding house Keepers.....	26	1,626	62.51	Waitresses.....	10	291	29.10
Total.....	2,801	111,294	40.80	Total.....	2,801	111,294	40.80
Grand Total.....	48,897	2,545,094	52.11	Grand Total.....	48,897	2,545,094	52.11

Diagram III. Exhibiting the comparative mortality by absolute number of decedents, from twenty principal causes of death in Rhode Island, in 1898.



THE RETURNS OF THE MEDICAL EXAMINERS.

The number of deaths investigated by the medical examiners during the year 1898 was 383. These deaths resulted from sudden, suspicious, unknown, and violent causes. Of this number 296, or 77.3 per cent., were males; and 87, or 22.7 per cent., were females.

HOMICIDE.—The number of deaths from homicide was 12, or 3.1 per cent. of the whole number investigated. Of the 12 cases from homicide, 5 were by violence to head, 2 by pistol shot wound of heart, 1 by pistol shot wound of intestines, 1 by stab wound of thorax, 1 by broken neck (body found in water), 1 drowning, caused by being pushed off pier. In three cases the assailants were brought to trial, convicted, and sentenced. In 1 case the jury disagreed twice and the case is still on file. In 2 cases it was called "justifiable homicide," as the shooting in each case was found to have been done in self-defense.

SUICIDE.—The number of deaths by suicide reported by the medical examiners in 1898 was 41, or 10.7 per cent. of the whole number examined. Death was caused as follows: By drowning, 8; shooting, 6; hanging, 7; illuminating gas, 3; arsenic, 1; carbolic acid, 3; cyanide of potassium, 2; Paris green, 2; "Rough on Rats," 1; strychnine, 1; poison unknown, 2; cutting throat, 2; jumping from window, 1; by throwing self in front of engine, 1.

ACCIDENTS.—The returns of the medical examiners show 203 deaths from accidents, specified as follows: Asphyxia, 17; *bicycle, 5; burns and scalds, 11; drowning, 57; electric car, 5; *elevator, 4; exposure to cold and storm, 4; falls, 26; fire-arms, 3; lightning, 1; machinery, 6; poison, 8; railroad, 28; shock from electric light current, 1; vehicular, 6; insolation, 10; 1 each by fall of boiler in brewery, injury to head during drunken row, crushed by falling grindstone, struck by falling tree, crushed between car and post (a coal wharf casualty), hit by derrick boom (fractured skull), kicked by a horse, injured (ruptured bladder) while playing football, injured while trying to stop runaway horse, hanged while in play; and 1 unknown accident.

* See page 192 of this report.

ASPHYXIA, 17.—Eight (infants) by bed-clothes and overlaying; 1 by caving of sewer trench; 2 by food in larynx; 3 by illuminating gas; 2 by smoke in burning building; 1 (infant), cause unknown.

BURNS AND SCALDS, 11.—In burning building, 4; by clothes taking fire from stove, 1; by explosion of lamp, 1; by explosion of kerosene stove, 1; from a dump fire, 1; upset dish of hot water, 1; playing with matches, 2.

DROWNING, 57.—Twelve were bathing or swimming; 9 were drowned by capsizing of boats; 4 fell overboard from small boats; 1 was drowned while swimming horse in bay; 1 fell into water from railroad bridge; 1 from oyster boat; 1 from raft; 1 from steamer; 3 fell into water while playing on edge; 1 while riding a bicycle on scow was precipitated into water; 1 through ice; 1 fell into uncovered cistern; 1 (child) in bath-tub which mother used as a wash-tub; 20 were found in water, circumstances of the drowning unknown.

ELECTRIC CAR, 5.—By falling from car, 1; run over while rolling hoop across track, 1; struck by cars while walking on, or crossing, tracks, 3.

FALLS, 26.—From building, 1; from ladder or staging, 3; down-stairs, 11; from embankment, 1; from horse, 1; from tree, 1; from load of hay, 1; on ice, 1; from window, 3; on floor or ground, 3.

POISON, 8.—By ammonia, 1; overdose of chloral hydrate, 1; corrosive sublimate, 2; overdose of morphine, 2; muriate of zinc, 1; turpentine, 1.

MACHINERY, 6.—The ages of the victims of machinery accidents were 24, 38, 48, 58, 58, and 62 years.

The following cases are deemed worthy of special mention :

ACCIDENTAL DROWNING.—A young man was riding a bicycle on a scow in the Pawcatuck river, no one being on the scow but himself. He evidently struck the coaming of the scow, and both he and the bicycle were precipitated into the water. His cry was heard by comrades on the dredger close by, but they were unable to recover body until life was extinct.

ACCIDENTAL HANGING.—Deceased (a boy 16 years old) had been alone with his mother during the afternoon, engaged in playing games. Mother retired to an adjacent room to do machine sewing. Soon after coming out into the kitchen, found son with a rolled sheet about his neck, and sportive in his manner. Mother said she laughed at him, and returned to her work. Coming out again

soon, she found deceased suspended from an open door, by part of a clothes line.

The whole number of deaths by *accident* in the State during 1898 was 296, showing that there were 93 deaths by accident where no medical examiner was called. In these cases a physician had been in attendance and had reported the cause of death. In many instances the death was not immediate.

The division of these 296 deaths by *accident* was as follows: (See pages 20 and 21 of this report) Asphyxia, 19; bicycle, 4; burns and scalds, 21; drowning, 60; electric car, 7; elevator, 4; exposure, 7; falls, 58; fire-arms, 9; insolation, 23; lightning, 1; machinery, 5; poison, 11; railroad, 30; other and various, 37. (See page 193 of this report.)

A comparison of these figures with the cases of accidents which are viewed by the medical examiners will show the cases which are more open to suspicion of avoidable violence. The difference (32) is more marked under the cause of "falls."

Under sudden deaths which were investigated by medical examiners, were as follows: Alcoholism, 15; apoplexy and cerebral hemorrhage, 10; bronchitis, 1; childbirth, 2 (includes 1 puerperal septicæmia); cholera infantum, 2; convulsions (infantile), 1; debility from malnutrition, 1 (adult); debility (infantile) from malnutrition and neglect, 7; heart disease, 39; hydrocephalus, 1; indigestion (infantile), 4; influenza, 1; malaria, 1; measles, 1; meningitis, 5; cerebro-spinal meningitis, 1; chronic nephritis, 3; œdema of lungs, 1; old age, 4; pneumonia, 8; premature birth, 1; pulmonary hemorrhage, 1; pulmonary tuberculosis, 5; whooping cough, 1; unknown natural causes, 6; still-born, 5.

*Number and Per cent. of Each Group of Cases Viewed by Medical Examiners—
1894-1898.*

YEARS.	Homicide.		Suicide.		Accident or Negligence.		Natural and Unknown Causes, Including Alcohol ism.		Totals.
	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	
1894.....	9	3.1	45	15.6	111	49.0	93	32.3	288
1895.....	6	1.7	31	8.5	223	61.4	103	28.4	363
1896.....	1	0.3	27	8.3	177	54.3	121	37.1	326
1897.....	12	3.4	32	9.2	157	45.1	147	42.3	348
1898.....	12	3.1	41	10.7	203	53.0	127	33.2	383

APPENDIX A.

NOMENCLATURE OF DISEASES,

OR

CAUSES OF DEATH.

NAMES OF CAUSES OF DEATH.

It should be stated that the nomenclature of diseases in the nosological arrangement on the following pages is not intended to include the names of the whole list of morbid phenomena affecting the human organism, but the names of such only as are directly the **cause of death**, or such as ordinarily predispose to or set in motion the morbid processes that end in death.

The classification which has appeared in the previous issues of this report, and which was the result of a report of the committee of the Royal College of Physicians of England, has been modified to accord with the changes which have taken place in our knowledge of the pathological causation of diseases since that classification was made.

The changes which have been made apply more especially to **GROUP ONE**, the title of which has been changed from Miasmatic to Communicable, and has absorbed all of **GROUP TWO**, which was known as the Euthetic group. This included glanders, gonorrhœa, hydrophobia, malignant pustule, septicæmia, and syphilis, all of which are at the present day considered as communicable diseases, and probably dependent upon a morbid entity which in some of these diseases has been demonstrated.

In **GROUP TWO** delirium tremens has been dropped to the supplementary list, being but a symptom or a result of the condition of alcoholism, which, while not strictly correct, is yet more comprehensive in covering this class of causations.

Aphæ, worms, and other parasites should be classed as communicable, the parasites being of a higher order than those producing diphtheria and cholera, and are dropped from this class.

As dropsy is a result or symptom rather than an immediate cause of death it has been left out.

Gangrene, occurring in old age, has been transferred to the group Developmental Diseases of Old Age. Other conditions where gangrene is found have been traced satisfactorily to traumas, or diseases of the circulatory system.

In **CLASS III**, in the group of diseases of the Nervous System, cephalitis has been dropped as being obsolete. Convulsions has been transferred to the group of Developmental Diseases of Chil-

dren, all such deaths having been found to be within these age periods.

From the group of the Respiratory System pneumonia has been transferred to the list of Communicable diseases.

In GROUP FOUR, of the Digestive System, appendicitis has been introduced as being a sufficiently distinct and frequent disease, and concerning which statisticians will desire information as to the mortality therefrom. Peritonitis, being a sequel of a traumatic or a septic condition, is usually traceable to a primary cause if inquired into. When no specific cause is obtainable it is placed under causes ill-defined. Ascites, being a secondary cause, is relegated to causes ill-defined, unless the original cause of the ascites can be ascertained. Hernia is retained in this group, rather than in the group of Accidents and Negligence. Other new diseases which are introduced into this group as being now more specifically diagnosticated, are obstruction of the bowels, colitis, enterocolitis, diarrhoea, dysentery, gastro enteritis, and gallstones—which is retained for want of a more definite term which shall express the conditions causing the formation of the gallstones—and acute gastritis.

Under diseases of the Urinary System, the word nephria is omitted, the term Bright's Disease being retained in the absence of the ability or practicability of the ordinary diagnostician to be able to distinguish the different forms of nephritis, or blood changes or other causes giving rise to the presence of albumen in the urine. Diabetes is divided into the two forms of mellitus and insipidus. While perhaps belonging to the group of nervous diseases, yet it is not yet sufficiently well explained to prove in which group it might be placed, and custom in this case is allowed to prevail. Diseases of the testicles has been omitted as it has, by experience in this department, been found to be dependent upon some pathological change, such as neoplastic formations or traumatic or septic conditions, and the primary cause usually finds its way into these groups. Uræmia is placed in the primary group as being expressive of the direct location of the disease, although not being specific as to the causation.

Under diseases of the Generative System we are at the present day able to specify more accurately the condition present, owing to the increased knowledge required of the gynecologist. Ovarian dropsy is therefore dropped, and ovarian tumor, diseases of the uterus, and pyosalpinx are submitted as subdivisions. This group will probably be enlarged as physicians become better educated in specific diagnosis in this special department.

As still-births are classified by themselves they are removed from the group of Developmental Diseases of Children. To this

group has been added atelectasis pulmonum, also cholera infantum. Convulsions is allowed to remain. Although every effort is made to ascertain the cause of this symptom, and it is frequently dependent upon intestinal disturbances as well as nervous derangements, yet it is impossible for the physician to ascertain the provoking cause. As it is not sufficiently "ill-defined" to be relegated to that group, being a disease of childhood, it is placed in this group.

Under Developmental Diseases of Women the various subdivisions of the causes of death in childbirth have been given and an effort made to obtain these special causes rather than let them remain as simply "childbirth."

Diseases of Nutrition are omitted, as atrophy or debility is found to be either in the group of old age, or diseases of infants, or caused by some disease which can be ascertained. If the cause is not evident to the physician, it is evidently a cause unknown, and should be classed as such.

Under the group Accident or Negligence, the term fractures or contusions is omitted, as it is ascertained in every case what caused these injuries. The results of the injuries are treated of as supplemental, as is also the instrument causing the injury, or the form of poison, or the method of drowning, etc. The division Various is subdivided into more specific causes, and introduces into this group electric car accidents, falls, fire-arms, machinery, overdose of medicine, railroad, and "otherwise."

Under Causes Ill-defined, and which are invariably inquired into for more satisfactory information, there are a large number which may be found in the supplementary list. Blood poisoning is due usually to some known traumatic or infectious cause, as is septicæmia. When not known it is ill-defined. The cause of coma should be given if known, as it may be from cerebral hemorrhage or from uræmia. Convulsions, not infantile, are usually due to some traceable cause. Ascites, colic, dropsy, exhaustion, and inflammation are symptoms and not causes. Debility and asthenia not infantile and not senile, can usually be traced to some definite change in the system, otherwise it is ill-defined. It has been customary heretofore for physicians to give as a cause of death "heart failure," meaning that the heart ceased its action or that the cause was a natural one not accompanied by violence. It is generally admitted that this is unsatisfactory, and with this compilation, when the cause of the heart failure cannot be obtained, it is classed as ill-defined. While peritonitis may be idiopathic, in most instances a cause of the peritonitis has been ascertainable; it has been classed as ill-defined if no cause is known. Shock, when occurring as surgical shock, being usually the result

of accident or surgical operation, is classed under these groups. When no accompanying cause is given, as might be the case from fright, or sudden joy, the cause is usually due to some abnormality of the nervous system or disease of the heart, and in the absence of the specific cause must be placed under ill-defined. When given as a single cause in cases of cerebral hemorrhage or apoplexy, the latter cause can be ascertained by inquiry, and proves to be the cause in most instances. The following list comprises those causes, which have been returned and, not being sufficiently definite, have led to inquiry from the physician in attendance. The only causes which cannot be more explicitly defined, and are sufficient as primary causes, are appendicitis and hernia. In these two instances inquiry is made as to whether an operation was performed for relief of the condition. In acute gastritis it is desirable to ascertain if the condition was due to the ingestion of some irritant, as alcohol, poison, or is the result of indigestion. More specific cause is asked for in childbirth, miscarriage, premature birth, and still-birth, in order to determine in as many cases as possible what was the condition of the mother or the complication in confinement which has led up to the result which is the cause of the death of the child. By spinal disease is sometimes meant disease of the spinal cord, in other cases diseases of the spinal column, and calls for inquiry.

Abscess,	Diabetes,	Malformation,
Accident,	Dropsy,	Marasmus,
Appendicitis,	Drowning,	Miscarriage,
Ascites,	Eclampsia,	Mortification,
Asphyxia,	Erysipelas,	Natural causes,
Asthenia,	Exhaustion,	Necrosis,
Blood Poisoning,	Fever,	Peritonitis,
Bowels, perforation of,	Fistula,	Poisoning,
Burns,	Fractures,	Premature Birth,
Brain, concussion of,	Gangrene,	Scalds,
Brain trouble,	Gastritis, Acute,	Septicæmia,
Brain fever,	Heart failure,	Shock,
Cancer,	Heart trouble,	Spasms,
Carbuncle,	Heart, paralysis of,	Spinal Disease,
Childbirth,	Hernia,	Stillborn,
Colic.	Hæmorrhage,	Strangulation,
Convulsions,	Homicide,	Suffocation,
Coma,	Inflammation,	Suicide,
Croup,	Laryngeal obstruction,	Tumor,
Debility,	Lungs, Œdema of,	Wounds.
Dentition,		

NOMENCLATURE OF CAUSES OF DEATH.

CLASSES.

- I. General Diseases.—A. SPECIFIC AND FEBRILE. (*Zymotic.*)
- II. General Diseases.—B. CACHETIC. (*Constitutional.*)
- III. General Diseases.—A. FUNCTIONAL OR ORGANIC. (*Local.*)
- IV. Special Diseases.—B. DEVELOPMENTAL. (*Developmental.*)
- V. Violence. —C. FROM INJURIES, ETC. (*Violent.*)

SUB GROUPS OR ORDERS.

CLASS I. *Zymotic Diseases.*

GROUP ONE, Communicable. GROUP TWO, Dietic.

CLASS II.—*Constitutional Diseases.*

GROUP ONE, Diathetic.

CLASS III.—*Local Diseases.*

GROUP ONE, Diseases of the Nervous System. GROUP TWO, Organs of Circulation. GROUP THREE, Organs of Respiration. GROUP FOUR, Organs of Digestion. GROUP FIVE, Urinary Organs. GROUP SIX, Reproductive Organs. GROUP SEVEN, Osseous and Locomotory Organs. GROUP EIGHT, Integumentary System.

CLASS IV.—*Developmental Diseases.*

GROUP ONE, Of Children. GROUP TWO, Of Women. GROUP THREE, Of Old Age.

CLASS V.—*Deaths by Violence.*

GROUP ONE, Accidents and Negligence. GROUP TWO, Homicide. GROUP THREE, Suicide.

STATISTICAL NOSOLOGY.

CLASS I.—Zymotic Diseases.

TABULAR LIST.

For Table IX of the Registration Report.

GROUP ONE.—Communicable.

- I. One.—1. Varicella.....
 2. Measles.....
 3. Scarlet Fever.....
 4. Diphtheria.....
 5. Small-Pox.....
 6. Tonsilitis.....
 7. Carbuncle.....
 8. Erysipelas.....
 9. Fever, Puerperal.....
 10. Malignant Pustule.....
 11. Meningitis, Cerebro Spinal...
 12. Tetanus.....
 13. Fever, Malarial.....
 14. Fever, Typhoid.....
 15. Influenza.....
 16. Parotitis.....
 17. Pertussis.....
 18. Pneumonia.....
 19. Gonorrhœa.....
 20. Syphilis.....
 21. Hydrocephalus.....
 22. Scrofula.....
 23. Tabes Mesenterica.....
 24. Tubercular Laryngitis.....
 25. Tubercular Meningitis.....
 26. Tubercular Peritonitis.....
 27. Tuberculosis, Pulmonary....
 28. Tuberculosis, General.....

GROUP TWO.—Dietic.

- I. Two.—1. Alcoholism.....
 2. Inanition.....
 3. Purpura and Scurvy.....

SUPPLEMENTAL LIST.

Synonyms or Related Diseases.

GROUP ONE.—Communicable.

- I. One.—1. Chicken-Pox.
 Miliaria.
 Roseola.
 2. Rotheln.
 3. Scarlet Fever.
 4. Membranous Croup.
 6. Quinsy.
 7. Anthrax.
 Gangrenous Boil.
 8. Hospital Gangrene.
 Pyæmia.
 12. Laryngismus.
 Lockjaw.
 Trismus Nascentium.
 16. Mumps.
 17. Whooping Cough.
 18. Congestion of Lungs.
 19. Stricture of Urethra.
 Gonorrhœal Ophthalmia.
 22. Psoas (Lumbar) Abscess.
 Goitre.
 Adenitis.
 Lymphangitis.
 Morbus Coxarius.
 Pott's Disease.
 27. Hæmoptysis.

GROUP TWO.—Dietic.

- I. Two.—1. Delirium Tremens.
 Intemperance.

CLASS II.—Constitutional Diseases.

GROUP ONE.—Diathetic:

- II. One.—1. Anæmia.....
 2. Cancer, Abdomen.....
 3. Cancer, Breast.....
 4. Cancer, Face.....
 5. Cancer, Liver.....
 6. Cancer, Rectum.....
 7. Cancer, Stomach.....
 8. Cancer, Uterus.....
 9. Cancer, Various.....
 10. Rheumatism.....

GROUP ONE.—Diathetic.

- II. One.—1. Leucothythæmia.
 Chlorosis.
 10. Rheumatic Carditis.
 Rheumatic Synovitis.
 Gout.

CAUSES OF DEATH.

CLASS III.—Local Diseases.

TABULAR LIST.

GROUP ONE.—Nervous System.

- III. One.—1. Apoplexy and Paralysis.
 2. Cerebritis.....
 3. Chorea.....
 4. Epilepsy.....
 5. Insanity.....
 6. Meningitis.....
 7. Meningitis, Spinal.....
 8. Brain Diseases*.....
 9. Nerve Diseases*.....

GROUP TWO.—Circulatory System.

- III. Two.—1. Aneurism.....
 2. Angina Pectoris.....
 3. Endocarditis.....
 4. Pericarditis.....
 5. Phlebitis.....
 6. Sclerosis.....
 7. Heart Diseases*.....

GROUP THREE.—Respiratory System.

- III. Three.—1. Asthma.....
 2. Bronchitis, Acute.....
 3. Bronchitis, Chronic.....
 4. Croup.....
 5. Laryngitis.....
 6. Pleurisy.....
 7. Lung Diseases*.....

GROUP FOUR.—Digestive System.

- III. Four.—1. Appendicitis.....
 2. Bowels, Obstruction of..
 3. Bowel Diseases*.....
 4. Colitis.....
 5. Colitis, Entero.....
 6. Diarrhœa.....
 7. Dysentery.....
 8. Enteritis.....
 9. Enteritis, Gastro.....
 10. Fistula.....
 11. Gall Stones.....
 12. Gastritis.....
 13. Gastritis, Acute.....
 14. Hepatitis.....
 15. Hernia.....
 16. Intestines, Stricture of..
 17. Intestines, Ulceration of.
 18. Intussusception.....
 19. Jaundice.....
 20. Liver, Cirrhosis of.....
 21. Liver Diseases*.....
 22. Spleen Diseases*.....
 23. Stomach, Ulceration of..
 24. Stomach Diseases*.....

SUPPLEMENTAL LIST.

- III. One.—1. Cerebral Hemorrhage.
 Locomotor Ataxia.
 Paresis.
 5. Dementia.
 Mania.
 Monomania.
 Melancholia.
 8. Neurasthenia.
 Disease of Spinal Cord.
 9. Hysteria.
 Nervous Prostration.
 Neuritis.
 Myelitis.
 Pleurodynia.

- III. Two.—7. Hypertrophy.
 Valvular Disease.
 Embolism.
 Thrombosis.

- III. Three.—1. Emphysema.
 4. Edema Glottidis.
 6. Empyema.

- III. Four.—2. Constipation.
 Illens.
 Obstipation.
 12. Stomatitis.
 Esophagitis.
 15. Femoral.
 Inguinal.
 Umbilical.
 Ventral.
 16. Stricture of Esophagus.
 17. Perforation of—
 24. Dyspepsia.
 Gastralgia.
 Hæmatemesis.

* Not otherwise placed.

STATISTICAL NOSOLOGY.

CLASS III.—Local Diseases.—Continued.

TABULAR LIST.	SUPPLEMENTAL LIST.
GROUP FIVE.—Urinary System.	
III. Five.—1. Bladder Diseases.*..... 2. Calculus..... 3. Cystitis..... 4. Diabetes..... 5. Diabetes, Mellitus..... 6. Ischuria..... 7. Kidney Diseases*..... 8. Kidney, Bright's Dis. of.. 9. Nephritis..... 10. Nephritis, Chronic..... 11. Prostate Disease..... 12. Uræmia.....	III. Five.—1. Urethritis. 7. Hæmaturia. 8. Albuminuria.
GROUP SIX.—Generative System.	
FEMALE.	
III. Six.—1. Ovarian Diseases*..... 2. Ovarian Tumor..... 3. Diseases of Uterus..... 4. Pyo Salpinx.....	III. Six.—3. Tumor, Fibroid. Pelvic Cellulitis. Hemorrhage of.
GROUP SEVEN.—Osseous and Locomotory System.	
III. Seven.—1. Bones, Diseases of..... 2. Joint Diseases*..... 3. Vertebrae, Diseases of....	III. Seven.—1. Ostitis. Periostitis. Rickets. Caries, Necrosis. 2. Synovitis. Hip Diseases. 3. Spine, Caries and Necrosis of.
GROUP EIGHT.—Integumentary System.	
III. Eight.—1. Eczema..... 2. Phlegmon..... 3. Skin Diseases*.....	III. Eight.—2. Abscess, part not stated. Boll. 3. Pemphigus. Psoriasis, etc. Dermatitis.
GROUP NINE.—Organs of Special Sense.	
III. Nine.—1. Osis Petrosi..... 2. Otitis.....	

* Not otherwise placed.

CAUSES OF DEATH.

CLASS IV.—Developmental Diseases.

TABULAR LIST.

GROUP ONE.—Developmental Diseases of Children.

- IV. One.—1. Atelectasis Pulmonum...
 2. Cholera Infantum.....
 3. Convulsions.....
 4. Cyanosis.....
 5. Debility, Infantile.
 6. Premature Birth.....
 7. Dentition.....
 8. Hemorrhage, Umbilical...
 9. Icterus Neonatorum.....
 10. Indigestion.....
 11. Innutrition.....
 12. Spina Bifida.....
 13. Other Malformations.....

GROUP TWO.—Developmental Diseases of Women.

- IV. Two.—1. Paramenia.....
 2. Difficult Labor.....
 3. Miscarriage.....
 4. Placenta Prævia.....
 5. Post partum Hemorrhage.
 6. Puerperal Eclampsia.....
 7. Puerperal Mania.....
 8. Puerperal Peritonitis.....
 9. Childbirth*.....

GROUP THREE.—Developmental Diseases of Old People.

- IV. Three.—1. Old Age.....
 2. Debility, Senile.....
 3. Gangrene.....

SUPPLEMENTAL LIST.

- IV. One.—5. Asthenia.
 8. Hemorrhagic Diathesis.
 11. Malnutrition.
 13. Imperforate Anus.
 Cleft Palate.

- IV. Two.—1. Climacteria.

CLASS V.—Deaths by Violence.

GROUP ONE.—Accident or Negligence.

- V. One.—1. Asphyxia.....
 2. Burns and Scalds.....
 3. Drowning.....
 4. Electric Car.....
 5. Falls.....
 6. Firearms.....
 7. Machinery.....
 8. Overdose of Medicine...
 9. Poison.....
 10. Railroad.....
 11. Otherwise.....

- V. One.—11. Freezing.
 Exposure.
 Insolation.
 Lightning.
 Surgical Operation.

* Not otherwise placed.

STATISTICAL NOSOLOGY.

CLASS V.—Deaths by Violence.—Continued.

TABULAR LIST.	SUPPLEMENTAL LIST.
<p style="text-align: center;">GROUP TWO.—Homicide.</p>	<p>V. Two.—1. Infanticide. Patricide. Matricide. Fratricide. Filicide.</p>
<p style="text-align: center;">GROUP THREE.—Suicide.</p> <p>V. Three.—1. Drowning..... 2. Hanging..... 3. Poison..... 4. Wounds, gun or pistol... 5. Wounds, knife.....</p>	<p>V. Three.—3. Arsenic. Laudanum. Paris Green. Other.</p>
<p>1. Causes ill-defined.....</p> <p>2. Causes not stated.....</p> <p>3. Stillborn.....</p>	<p>1. Blood Poisoning. Coma. Convulsions (not infantile). Colic. Debility (not infantile and not senile). Dropsy or Ascites. Exhaustion. Heart Failure. Inflammation. Mortification. Peritonitis. Septicæmia. Shock. Dentition.</p>

APPENDIX B.

THE LAWS OF RHODE ISLAND

(As amended February 1, 1895.)

IN RELATION TO THE REGISTRATION OF

BIRTHS, MARRIAGES, AND DEATHS, AND OF DIVORCE.

GENERAL LAWS, CHAPTER 100.

OF THE REGISTRATION OF BIRTHS, MARRIAGES, AND DEATHS.

SECTION 1. The town clerks of the several towns, or any person whom the board of aldermen of any city, or the town council of any town, may appoint for that purpose, shall obtain, chronologically record and index, as required by the forms prescribed by section three of this chapter, all information concerning births, marriages, and deaths occurring among the inhabitants of their respective towns; and on or before the first Monday in March, annually, shall make duly certified returns thereof to the secretary of the state board of health for the year ending on the thirty-first day of December next preceding, accompanying the same with a list of the persons required by law to make returns to them who have neglected to do so, and with such remarks relating to the object of this chapter as they may deem important to communicate.

SEC. 2. The secretary of the state board of health shall receive the returns made in pursuance of the preceding section, and annually make a general abstract and report thereof, in form as prescribed by section three of this chapter, and publish not exceeding one thousand copies thereof; and for preparing, tabulating, and publishing said annual report such sum as may be provided by law shall be paid to the state registrar. Said returns, after such report is prepared, shall be deposited in the office of the secretary of state, who shall cause the same to be arranged, full alphabetical indices all the names to be made, and the whole to be bound in volumes of convenient size and carefully preserved in his office.

SEC. 3. The blank forms required to carry out the provisions of this chapter shall, on application, be furnished by the secretary of the state board of health to clergymen, physicians, undertakers, town clerks, clerks of meetings of the Society of Friends, and other persons requiring them, substantially as follows: The record of a birth shall state the date and place of birth, name of the child if it has any, the sex and color of the child, whether born alive or still-born, the name and surname, color, residence, and birthplace of the parents, and the occupation of the father, and the time of recording, so far as the same can be ascertained. The record of a marriage shall state the date of the marriage, place, name, residence, and official station of the person by whom married, names and surnames of the parties, age, color, occupation, and residence of each, condition, that is, whether single or widowed, what marriage, that is, whether first, second, third, or other marriage, the occupation, birthplace, and name of their parents, and the time of recording, so far as the same can be ascertained. The record of deaths shall state the date of the death, name and surname of deceased, the sex, color, and condition, whether single or married, age, occupation, place of death, place of birth, names and birthplace of parents, disease or cause of death, and the time of recording, so far as can be ascertained.

SEC. 4. Every meeting of the Society of Friends, clergymen, and all others authorized to join persons in marriage, shall make a faithful record of every such rite performed by them, in manner and form aforesaid, and return the same for the last preceding month, on or before the second Monday of every month, to the town clerk of the town in which such rite shall have been performed; and no marriage shall be solemnized until the parties shall have signed and delivered to the person about to solemnize it, or to a clerk of a meeting of the Society of Friends, a certificate containing the information required for the record of a marriage, as prescribed by this chapter.

SEC. 5. The town clerk of every town shall annually, in the month of January, collect the information required by this chapter, in relation to all children born in the town during the year ending on the thirty-first day of December next preceding.

SEC. 6. Physicians and midwives shall, on or before the fifth day of each month, report to the clerk of each city or town a correct list of all children born therein during the month next preceding, at whose birth they were present, stating the date and place of each birth, the name of the child if it has any, the sex and color of the child, the name, place of birth and residence of the parents, and the occupation of the father. The fee of the physician or midwife shall be twenty-five cents for each birth so reported, and shall be paid by the city or town in which the report is made.

SEC. 7. Whenever any person shall die, or any still-born child shall be brought forth in this state, the physician attending at such bringing forth

or last sickness, if any physician so attended, shall, within forty-eight hours after such death or bringing forth, leave with the family, if any, or person having the care of the deceased, or the person bringing forth such still-born child, or give to the undertaker or person who conducts the funeral, a certificate stating, in case of a death, the name of the deceased, the date of the death, and the disease or cause of the death, and in case of the bringing forth of a still-born child, the date and the cause of such child being brought forth still-born. *Provided, however,* that if the physician last in attendance shall not have knowledge of such death, or is otherwise reasonably prevented from leaving with the family or giving the undertaker such certificate within the time hereinbefore specified, or before the funeral or disposal of the remains of the deceased, he shall, within five days after having knowledge of such death by notification or otherwise, send to the town or city clerk or registrar of the town or city in which such death occurred a certificate, stating the name, date, and disease or cause of death of such decedent.

SEC. 8. Every town council may appoint a sufficient number of persons to act as undertakers, removable at the pleasure of such council.

SEC. 9. No undertaker or other person shall conduct a funeral, or bury or deposit in a tomb, or remove from this state or otherwise dispose of the remains of any deceased person or still-born child, unless he shall first obtain the physician's certificate required by section seven of this chapter, if a physician was in attendance upon such person who has deceased or the person bringing forth such still-born child, and shall return the same, together with his own certificate of the information required by section three of this chapter, to the town clerk of the town where such death or bringing forth took place: *Provided, however,* that in such towns as allow the burial or removal of bodies of deceased persons without a permit from the town clerk, and if the undertaker or other person who has charge of the disposal of the remains of the deceased person is unable to obtain the said physician's certificate, after reasonable attempts therefor, before the burial or removal of the said remains, then the said undertaker or other person shall make his return as required by section three of this chapter, including the cause of death and the name of the physician last in attendance upon the deceased, immediately to the town or city clerk or registrar of the town or city in which the death occurred. He shall, also, within two days thereafter, notify the physician last in attendance upon the deceased person of the name and date of death of the same.

SEC. 10. Clergymen of all denominations who officiate at the funerals of decedents when no undertaker is in attendance, shall, when requested by the state registrar, or the town or city clerk or registrar of the town or city in which such deaths occurred, make returns of such deaths in the same manner and with the same compensation as undertakers.

SEC. 11. Any town may make ordinances more effectually to attain the objects herein contemplated.

SEC. 12. The town clerks, or persons appointed as aforesaid, shall receive for each record of a death made and returned as required by law, and for each record of a marriage made and returned as required by law, twenty cents, to be paid to them out of their respective town treasuries: *Provided*, that the yearly compensation to be paid out of the town treasury as aforesaid, to any one town clerk or person appointed as aforesaid, who shall perform the duties prescribed by this chapter, shall not be less than five dollars. Undertakers and others making returns of deaths, as required by sections seven and nine of this chapter, shall receive for each full report of a death made to the town clerk, five cents in the cities of Providence and Newport, and ten cents in the other towns of the state.

SEC. 13. Every clergymen, physician, midwife, undertaker, town clerk, clerk of a any meeting of the Society of Friends, or other person who shall wilfully or unreasonably neglect or refuse to perform any of the duties imposed on or required of him by this chapter, shall be fined not exceeding twenty dollars nor less than two dollars for each offence, one-half thereof to the use of the town in which the offence shall occur, and one-half thereof to the use of the person who shall complain of the same.

SEC. 14. Every clergymen, physician, coroner, undertaker, medical examiner, or clerk of any meeting of the Society of Friends, shall cause his name, residence and post-office address to be recorded in the town clerk's office of the town where he resides.

SEC. 15. No letters of administration or letters testamentary shall be granted by any court of probate upon the estate of any person, until the death of such person, or the facts from which the same is presumed, shall be duly certified, as near as may be, to the town clerk, in order that the same may be duly registered according to the provisions of this chapter.

SEC. 16. The town and city clerks, and registrars of the several towns and cities, shall have the custody of all records of births, deaths, and marriages of their respective towns, whether made under the statutes now in force or any former statute, and a certificate signed by them, certifying that any written or printed statement of any marriage, birth, or death is a true copy of the record in their custody, shall be admitted as evidence of such marriage, birth, or death.

SEC. 17. Births, marriages, and deaths of non-residents shall be distinguished from those of residents in the returns by being arranged separately.

SEC. 18. The secretary of the state board of health may from time to time vary the forms of returns, and require such additional information as he may consider necessary to accomplish the object of this chapter.

SEC. 19. The town clerks or other officers appointed under this chapter to collect, record, and return the birth in the several cities and towns, shall receive fees therefor as follows: For making record and return of

these facts as required by law, twenty cents for each entry and return: to be paid by the city or town in which the birth is recorded.

SEC. 20. The clerk or registrar of each town and city shall, on the first day of each and every month, make a certified copy of all births, marriages, and deaths recorded in the books of said town or city during the previous month, whenever the parents of the child born, or the bride or the groom, or the deceased person, were resident in any other town or city in this state, or in any other state, at time of said birth, marriage, or death; and shall transmit such certified copies to the clerk or registrar of the town, city, or state in which such parents of the child born, the bride or the groom, or the deceased, were resident at the time of said birth, marriage, or death, stating, in case of a birth, the name of the street and number of the house, if any, where such parents resided, the place of birth of such parents, and the maiden name of the mother, whenever the same can be ascertained; and the clerk or registrar so receiving such certified copies shall record the same in the books kept for recording births, marriages, and deaths. Such certified copies shall be made upon blanks to be furnished for that purpose by the secretary of the state board of health.

SEC. 21. The town clerks of the several towns, or other persons appointed under this chapter to collect the births in the several towns, shall annually in the month of January collect the facts concerning the births within their respective towns, required by this chapter, and shall, so far as practicable, at the same time collect the names of all persons liable to be enrolled in the militia, as required by title thirty-four, and the census of all persons between the ages of five and fifteen years inclusive, as provided by chapter fifty-four, and shall receive therefor such compensation as the town council or the board of aldermen of their respective cities shall determine: *Provided*, that the city of Providence shall be exempt from so much of the provisions of this section as relates to the collection of the statistics of births.

SEC. 22. Blanks for the foregoing purposes shall be furnished, on application therefor, on or before the first day of December in the year preceding, by the state board of health for the collection of births, by the adjutant-general for the taking of the enrolled militia, and by the commissioner of public schools for the census aforesaid.

SEC. 23. The person or persons who shall discharge the duties required by section twenty-one of this chapter, if other than the town clerk, shall make full return thereof to the town clerk of his or their town, on or before the tenth day of February next following.

SEC. 24. The returns required to be made by the clerks of the appellate division of the supreme court, in relation to divorcees, to the secretary of the state board of health, or a prepared abstract thereof, shall be published in the annual report on the births, marriages, and deaths in the state.

SYNOPSIS OF THE LAW OF MARRIAGE.

GENERAL LAWS, CHAPTER 191.

SECTIONS 1, 2, and 3 show what kindred persons cannot marry, and declare marriages within prohibited degrees null and void.

SECTION 4 makes an exception in favor of Jews, within the degrees of affinity or consanguinity allowed by their religion.

SECTION 5 declares the marriage of persons having a husband or wife living, and of idiots and lunatics, absolutely void.

SEC. 6. Any minister or elder of any religious denomination who shall be *domiciled* in the state, and shall have *registered* with the town clerk and have received a *license*, may join persons in marriage in this state.

SECTION 7 designates who shall be considered as belonging to a religious denomination within the meaning of the preceding section.

SEC. 8. Wardens in the town of New Shoreham may join persons in marriage in said town.

SECTION 9 designates who may join persons in marriage when solemnized among Quakers, or among persons professing the Jewish religion.

SEC. 10. *Every person* desiring to be joined in marriage in this state shall furnish to the town or city clerk of the town or city where such person resides, or, if such person is not a resident of the state, then to the town or city clerk of the town or city where such marriage is to be solemnized, the information called for in a blank form provided by the town or city clerk. Such person shall also procure from the town or city clerk a *certified copy* of such blank form so subscribed to, and present the same to the person who is to solemnize the marriage. For issuing such certified copy the town or city clerk shall be entitled to a fee of one dollar. Such clerk shall endorse his certificate upon the back of said *copy*.

SECTION 11 provides for the control of marriages of minors, and requires the written consent of the parent or guardian before the information provided for in section ten can be given. Persons over eighteen years of age, however, who may have no parent or guardian, may make oath relative to that fact to the city or town clerk, and may then give the required information called for in the application.

SECTION 12 requires that *each* of the persons married must present to the officiating clergyman a certified copy, as provided in section ten. These must also be signed by the respective parties to the marriage in the presence of the clergyman. This is intended to identify the parties as being the same who appeared for the certificate from the town clerk.

SECTION 13 requires that the officiating clergymen shall endorse the certificate stating that he has joined the parties in marriage, and also that two witnesses of the marriage shall append their signatures. It also provides that the minister shall make a return of the certificate to the town clerk on or before the second Monday of the month succeeding the date of the marriage.

SECTION 14 provides for the care and preservation of the records.

SECTION 15 provides for the work of registration in the city of Providence to be done by the city registrar.

SECTION 16 provides for the recording of the returned certificates in the office of the town clerk, and the final lodgment of the certificates with the secretary of state. These are there to be properly indexed, and open to inspection only in the presence of some one connected with the office of the secretary of state.

SECTION 17 provides that two witnesses shall be present at the marriage ceremony.

SECTION 18 provides that lawful objection to a marriage shall be made in writing, and the officiating clergyman shall not proceed with the marriage until the objection is removed.

SECTION 19 provides for a penalty of six months imprisonment, or a fine of one thousand dollars, for joining persons in marriage without first having been presented with the certified copies required in section ten, or without having first returned any lawful objection to the marriage.

SECTION 20 provides for a penalty a fine of not exceeding one hundred dollars, for failure to perform any of the duties devolving upon the officiating officer under this chapter.

SECTION 21 provides for a fine for joining persons in marriage who have a husband or wife living.

SECTION 22 provides that no marriage shall be deemed or adjudged to be void by any failure on the part of the officiating officers to comply with the law, if the marriage is in other respects lawful, and has been performed with a full belief on the part of the persons so married, or either of them, that they have been lawfully joined in marriage.

SEC. 23. Every person who shall solemnize a marriage without being legally authorized thereto, shall be fined five hundred dollars.

ADDENDUM.

SECTION 10 was modified at the January session of the Legislature, and provides that a license shall be issued to the persons to be joined in marriage, and that the signatures of the persons must be affixed to the declaration of intention of marriage, and in the presence of the clerk of the records. In case the parties reside in different towns in the state, then the fee shall be fifty cents for each town instead of one dollar.

GENERAL LAWS. CHAPTER 195.

OF DIVORCE.

SECTION 1. Divorces from the bond of marriage shall be decreed in case of any marriage originally void or voidable by law, and in case either party is for crime deemed to be or treated as if civilly dead, or from absence or other circumstances may be presumed to be actually dead.

SEC. 2. Divorces shall be decreed for impotency, adultery, extreme cruelty, willful desertion for five years of either of the parties, or for such desertion for a shorter period of time in the discretion of the court, for continued drunkenness, for the habitual, excessive, and intemperate use of opium, morphine, or chloral, for neglect or refusal on the part of the husband, being of sufficient ability, to provide necessaries for the subsistence of his wife, and for any other gross misbehavior and wickedness in either of the parties repugnant to and in violation of the marriage covenant.

SEC. 3. Whenever in the trial of any petition for divorce from the bond of marriage it shall be alleged in the petition that the parties have lived separate and apart from each other for the space of at least ten years, the court may in its discretion enter a decree divorcing the parties from the bond of marriage, and may make provisions for alimony.

SEC. 4. Whenever it shall appear that the absence, adultery, cruelty, desertion, or other cause of complaint as aforesaid was committed or occasioned by the collusion of the parties, and done and contrived with an intention to procure a divorce, in such case no divorce shall be decreed.

SEC. 5. Whenever a divorce is granted for fault on the part of the husband, the wife shall have dower as if the husband were dead; but such dower shall be claimed on proceedings begun within six months after the absolute decree, and, if not claimed within said period, or if claim be made for alimony within said period, then dower shall be deemed to be waived and released, and the only relief of the wife shall be a claim for alimony chargeable upon the estate of the husband, or some specific portion thereof as the court may decree: *Provided*, that in case of such divorce between parties married before the Digest of eighteen hundred forty-four went into operation, the wife shall be re-instated in all of her real estate, and have restored to her all of her personal estate not, in either case, disposed of at the date of the filing of the petition for said divorce.

SEC. 6. Whenever a divorce is granted for fault on the part of the wife, the husband, if he be entitled to curtesy-initiate, shall have a life estate in all the lands of the wife as if the wife were dead, but subject to such

allowance to the wife, to be charged on such life estate, as the court in the peculiar circumstances of the case may deem just and proper.

SEC. 7. Otherwise than as provided in the two preceding sections neither husband nor wife, on divorce being granted, shall have any right in the estate of the other.

SEC. 8. Divorces from bed, board, and further cohabitation, until the parties be reconciled, may be granted for any of the causes for which by law a divorce from the bond of marriage may be decreed, and for such other causes as may seem to require the same. In case of such divorce the court may assign to the petitioner a separate maintenance out of the estate or property of the husband or wife, as the case may be, in such manner and of such amount as it may think necessary or proper.

SEC. 9. Every petition shall be signed by the petitioner, if of sound mind and of legal age to consent to marriage; otherwise, upon application to the court, and after notice to the party in whose name the petition shall be filed, the court may allow such petition to be signed by a guardian or next friend.

SEC. 10. No petition for divorce shall be granted unless the petitioner shall at the time of preferring such petition, be a domiciled inhabitant of this state, and have resided therein for the period of one year next before the preferring of such petition.

SEC. 11. All such petitions shall be filed, heard, and tried in Providence, unless the petitioner shall reside in the county of Newport or in the county of Washington, in which case such petition shall be filed, heard, and tried in Newport or South Kingstown respectively.

SEC. 12. The court may by general rule determine the return-day of petitions for divorce and prescribe the notice to be given, within or without the state, on all such petitions, and may issue such process as may be necessary to carry into effect all powers conferred upon it in relation to the same; and said court may also, by general rule, fix the times, during its session, when all petitions for divorce shall be heard, as they may be filed in Providence, Newport, or South Kingstown, respectively. Such general rules shall, however, be subject to such special orders as the court may make in special cases. And, until general rules are made, special order in each case shall be made.

SEC. 13. Whenever any petition for divorce shall have been filed or be pending in the appellate division of the supreme court, and said court shall be of the opinion that sufficient notice of the pendency of said petition shall not, from any cause, have been given to the adverse party, said court may order notice or further notice to the adverse party to be given in such manner as the court may prescribe.

SEC. 14. The said court may regulate the custody and provide for the education, maintenance, and support of the children of all persons by them divorced or petitioning for a divorce, and all persons to whom a separate

maintenance may be granted or who may petition for the same; may in its discretion make such allowance to the wife, out of the estate of the husband, for the purpose of enabling her to prosecute or defend against any such petition for divorce or separate maintenance, in case she has no property of her own available for such purpose, as they may think reasonable and proper; and may make all necessary orders and decrees concerning the same, and the same may at any time alter, amend, and annul for sufficient cause, after notice to the parties interested therein.

SEC. 15. Any woman to whom a divorce from the bond of marriage is decreed may be authorized by such decree to change her name, subject to the same rights and liabilities as if her name had not been changed.

SEC. 16. After the filing and during the pendency of any petition for divorce the said court may make such interlocutory decrees and grant such temporary injunctions as may be necessary until a hearing can be had before said court.

GENERAL LAWS. CHAPTER 225.

OF DIVORCES.

SECTION 9. The clerks of the appellate division shall make returns to the secretary of the state board of health, on or before the first day of March in each and every year, for the year ending on the thirty-first day of December preceding, of all the applications for divorce, showing the number of applications, the number thereof continued, the number granted, and the causes for which the same are granted, but without the names of the parties, in accordance with the blanks which shall be furnished them by the secretary of state.

GENERAL LAWS. CHAPTER 287.

OF MEDICAL EXAMINERS AND CORONERS.

SECTION 1. The governor shall appoint, in each county, able and discreet men, learned in the science of medicine, to be medical examiners in such county.

SEC. 2. The number of medical examiners appointed as provided in the preceding section shall be as follows:

For the county of Washington five examiners, one in each of the five following districts, viz.: District one, composed of the town of Westerly; district two, of the town of South Kingstown; district three, of the town

of Hopkinton; district four, of the towns of North Kingstown and Exeter; district five, of the towns of Charlestown and Richmond.

For the county of Kent two examiners, one in each of the two following districts, viz.: District one, composed of the towns of West Greenwich and Coventry; district two, of the towns of East Greenwich and Warwick.

For the county of Providence eleven examiners, one in each of the first nine following districts, and in district ten two examiners, viz.: District one, composed of the towns of Scituate and Foster; district two, of the towns of Cranston and Johnston; district three, of the town of Glocester; district four, of the towns of Smithfield and North Providence; district five, of the towns of Burrillville and North Smithfield; district six, of the city of Woonsocket; district seven, of the town of Cumberland; district eight, of the cities of Pawtucket and Central Falls and the town of Lincoln; district nine, of the town of East Providence; district ten, of the city of Providence.

For the county of Bristol two examiners, one in each of the following districts, viz.: District one, composed of the towns of Barrington and Warren; and district two, of the town of Bristol.

*The number of medical examiners for the county of Newport shall be five, one in each of the first three districts and two in district four; and said districts shall be composed as follows: District one, of the towns of Tiverton and Little Compton; district two, the town of Portsmouth; district three, the town of New Shoreham; district four, the city of Newport and the towns of Middletown and Jamestown.

SEC. 3. If either of the medical examiners shall, at any time, from any cause, be unable to perform the duties of his said office, or shall be deemed by the attorney-general for any cause disqualified therefor, a medical examiner from an adjoining district may be called upon to perform them.

SEC. 4. Every medical examiner shall hold his office for the term of six years, and until another is appointed and qualified to act in his place, unless sooner removed by the appointment of some other person to fill his place.

SEC. 5. Every medical examiner shall, within thirty days after his appointment, and before entering upon the duties of his office, give bond with surety to, and to the satisfaction of, the general treasurer in the sum of one thousand dollars for the faithful performance of his duties.

SEC. 6. If the condition of any such bond be broken, to the injury of any person, actions may be brought upon such bond as upon the official bonds of sheriffs.

SEC. 7. Medical examiners shall make examinations as hereinafter provided, upon bodies of such persons only as are supposed to have come to their death by violence: *Provided*, that in case any prisoner in the state

*As amended April 16, 1896.

prison or in any county jail dies while so imprisoned, it shall be the duty of the medical examiner of the district in which such prison or county jail is situated, upon being notified of the death of such prisoner, to make at once an examination upon the body of such deceased prisoner.

SEC. 8. When a medical examiner has notice that there has been found, or is lying, within his district the body of a person who is supposed to have come to his death by violence, he shall forthwith repair to the place where such body lies and take charge of the same; and if, on view thereof and personal inquiry into the cause and manner of the death, he deems a further examination necessary, he shall, upon being thereto authorized in writing by the attorney-general, or by the mayor of the city or president of the town council of the town where such body lies, make an autopsy in the presence of two or more discreet persons as witnesses, and shall then and there carefully reduce, or cause to be reduced, to writing every fact and circumstance tending to show the condition of the body and the cause and manner of death, together with the names and addresses of said witnesses, which record he shall subscribe. Before making such autopsy he shall call the attention of the witnesses to the position and appearance of the body.

SEC. 9. Should the medical examiner deem it advisable to have present a physician as one of the witnesses as aforesaid, such physician shall also subscribe the record made by the medical examiner, and for such service he shall receive a compensation of five dollars.

SEC. 10. Town councils shall select a suitable person to act as coroner for their respective towns, to hold his office for three years and until another is elected and qualified to act in his place, unless sooner removed by the election of some other person to fill his place.

SEC. 11. The coroners so elected shall have exclusive jurisdiction as coroners in their respective towns.

SEC. 12. The coroner shall appoint in writing, under his hand and seal, one or more discreet persons to act as his deputy in case of his absence or inability to act, who shall have all the powers of a coroner, and be subject to like pains and penalties, for malfeasance in office; and the coroner shall file a copy of the appointment in the town clerk's office of his town.

SEC. 13. The coroner may suspend or discharge a deputy. The suspension or discharge of a deputy shall be in writing, addressed to the deputy; and the coroner shall forthwith file a duplicate thereof in the town clerk's office of his town.

SEC. 14. Every coroner and deputy coroner shall, before entering upon the duties of his office, take the engagement prescribed in section five of chapter twenty-five.

SEC. 15. Whenever the coroner has notice that there is in his town any person who has been injured by the criminal act, omission, or carelessness of another, and that said person believes that his death is impend-

ing from such injury, said coroner may take the statement of such person concerning the manner in which, and the person by whom, such injury was inflicted; and the statement so taken shall be reduced to writing and, if practicable, in the presence of the injured person.

SEC. 16. If, upon such view, personal inquiry, or autopsy, the medical examiner is of the opinion that the death was caused by the act or neglect of some person other than the deceased, he shall at once notify the attorney-general, and coroner of the town where the body was found, or in which it lies, and shall file a duly attested copy of the record of his autopsy, or view, with the said coroner and a like copy with the attorney-general; and shall in all cases certify to the officer having the custody of the records of deaths in the town in which the deceased came to his death, the name and residence of the person deceased, if known, or when the name and residence cannot be ascertained, a description of the deceased, as full as possibly may be, for identification, together with the cause and manner by and in which he came to his death.

SEC. 17. The coroner shall thereupon hold an inquest, which may be private; in which case any or all persons, other than those required to be present by the provisions of this chapter, may be excluded from the place where such inquest is held, and such coroner may also direct the witnesses to be kept separate so that they cannot converse with each other until they have been examined. The attorney-general, or some person designated by him, may attend the inquest and examine all witnesses; and the coroner shall cause the testimony to be reduced to writing and signed by the witnesses. The attorney-general may, if he deem it necessary or expedient, direct an inquest to be held in the case of any casualty from which the death of a person results.

SEC. 18. The coroner may issue summons for witnesses, returnable before him. The persons served with such process shall be allowed the same fees, their attendance may be enforced in the same manner, and they shall be subject to the same penalties, as if served with a summons in behalf of the state in a criminal prosecution pending before a district court.

SEC. 19. The coroner shall, after hearing the testimony, draw up and sign a report, in which he shall find and certify when, where, and by what means the person deceased came to his death; his name, if known, and all material circumstances attending his death; and if it appears that his death resulted wholly or in part from the unlawful act of any other person, he shall further state the name of such person, if known to him, and he shall file such report, and the testimony by him taken, together with a copy of the record of the autopsy or view, in the office of the clerk of the court wherein an indictment for the offence may be found.

SEC. 20. The coroner shall bind such witnesses as he deems necessary, or as the attorney-general may designate, by recognizance in a reasonable sum, with sufficient surety, to personally appear, at such time as the cor-

oner may designate, at the district court of the district wherein the inquest is held, and not depart therefrom until discharged by said court; and if any such witness shall refuse to recognize as aforesaid, the coroner shall commit such witness to the jail in the same county, there to remain until he shall so recognize or be otherwise discharged according to law.

SEC. 21. If the report of the coroner shall state that the death was caused by the unlawful act or by the gross carelessness of any other person, and by whose act the same was committed, he shall immediately make a complaint thereof against the person accused, in writing and on oath, to the justice or clerk of the district court in the district where the offence was committed, to the intent that the person killing or being in any way criminally instrumental to the death may be apprehended; but nothing herein contained shall be so construed as to prevent complaint being made at any time before the finding of the report. And the coroner shall forthwith, in writing, notify the attorney-general of the complaint aforesaid, that he may appear by himself or some person appointed by him, at the examination, and prosecute the complaint in behalf of the state.

SEC. 22. If a medical examiner reports that a death was not caused by the act or neglect of some person other than the deceased, and the attorney-general is of a contrary opinion, the attorney-general may, notwithstanding such report, direct an inquest to be held in accordance with the provisions of this chapter; at which inquest he, or some other person designated by him, shall examine all the witnesses.

SEC. 23. The medical examiner may, if he deem it necessary, employ a chemist to aid in the examination of the body, or of substances supposed to have caused or contributed to the death; and such chemist shall be entitled to such compensation for his services as the medical examiner certifies to be just and reasonable, the same being audited and allowed in the manner hereinafter provided.

SEC. 24. When a medical examiner views or makes an examination of the dead body of a stranger, he shall cause the body to be decently buried; and if he certifies that he has made careful inquiry, and that to the best of his knowledge and belief the person found dead is a stranger, having no settlement in any town of the state, his fees, with the actual expense of burial, shall be paid from the general treasury. In all other cases the expense of the burial shall be first paid by the town wherein the body is found, and such town may recover the money so paid from the town where such person last had a settlement: *Provided, however,* that the general treasurer, or any town, ultimately paying any such burial expenses, shall have the right to recover such burial expenses from the estate of the deceased person.

SEC. 25. When services are rendered in bringing to land the dead body of a person found in any of the harbors, rivers, or waters of the state, the medical examiner may allow such compensation for such services as he

deems reasonable; but this provision shall not entitle any person to compensation for services rendered in searching for a dead body.

SEC. 26. In all cases arising under the provisions of this chapter, the medical examiner shall take charge of any money or other personal property of the deceased, found upon or near the body, and shall deliver the same to the person entitled to its custody or possession; or if not claimed by such person within sixty days, then to an administrator, to be administered upon according to law.

SEC. 27. A medical examiner who fraudulently neglects or refuses to deliver any such property within three days, after demand upon him therefor, shall be imprisoned not exceeding two years or be fined not exceeding five hundred dollars.

SEC. 28. The fees of coroners shall, for the services specified in this chapter, be as follows, namely: For receiving and filing a duly attested copy of the record of an autopsy, fifty cents; for every page of two hundred words of written testimony, thirty cents; for each day's attendance in holding the inquest, five dollars; for the recognizance of witnesses, thirty-five cents; and for drawing up and filing a report in court, five dollars. Said fees having been audited by the state auditor, upon certificate of the attorney-general, shall be paid by the general treasurer.

SEC. 29. Each medical examiner shall receive fees as follows: For a view without an autopsy, four dollars; for a view and an autopsy, thirty dollars; and for travel, at the rate of ten cents a mile to the place of view. He shall also have power, in case of an autopsy, to employ a clerk at an expense not exceeding three dollars per day for each day's actual service.

SEC. 30. Every medical examiner shall return an account of the expenses of each view or autopsy, including his fees, to the state auditor, and shall annex to his return the written authority under which the autopsy was made. The state auditor shall audit such account and certify to the general treasurer what items in such account are deemed just and reasonable, and such items shall be paid by said treasurer to the persons entitled to receive the same.

SEC. 31. Medical examiners shall, in the books provided by the secretary of state, keep a record of all views of bodies found dead, together with their view and autopsy reports, and, on the first of January, April, July, and October, shall forward to the secretary of the state board of health attested copies of such records of views, together with the view reports and conclusions from autopsies. Should the commission of service of a medical examiner expire before the end of a quarter, the said examiner shall at once forward to the said secretary of the state board of health the records and reports of all cases unreported at date of expiration of said service.

SEC. 32. For each and every copy of said records and reports forwarded to the said secretary of the state board of health, medical examiners shall

receive twenty-five cents, which shall be paid by the state upon the voucher of said secretary of the state board of health that such copy of reports and records have been received by him.

SEC. 33. The secretary of the state board of health shall cause the returns received by him for each year, in accordance with this chapter, to be bound together with an index thereto; the state registrar shall prepare or cause to be prepared from the said returns such tabular results as will render them of practical utility, and shall make report thereof annually in connection with the report of births, marriages, and deaths required by chapter one hundred.

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